PRACTICE EXAM 2: CCAT-7 MULTILEVEL SIMULATION (176 QUESTIONS)

PRACTICE EXAM 2: CCAT-7 MULTILEVEL SIMULATION

VERBAL BATTERY

Recommended Time: 30 Minutes — 60 Questions

Do not turn back to a previous section or go ahead to the next section.

Section 1: Verbal Analogies (Questions 1–24)

Directions: In each question below, the first two words go together in a certain way. Choose the answer that goes with the third word in the same way.

1. night : dark :: day : _____

A. sun

B. noon

C. bright

D. warm

E. morning

2. hand : wrist :: foot : _____

A. shoe

B. toe

C. leg

D. walk

E. ankle

3. pencil : write :: knife : _____

A. sharp

B. cut

C. kitchen

D. fork

E. blade

4. fish : swim :: bird : _____

A. fly

B. wing

C. nest

D. feather

E. beak

5. book : read :: song : _____

A. instrument

B. music

C. singer

D. listen

E. radio

6. winter : cold :: summer : _____

A. vacation

B. sunny

C. hot

D. swim

E. beach

7. doctor : stethoscope :: painter : _____

A. picture

B. colour

C. wall

D. gallery

E. brush

8. cow : calf :: horse : _____

A. stable

B. foal

C. mane

D. gallop

E. saddle

9. library : books :: zoo : _____

A. animals

B. cages

C. tickets

D. children

E. keeper

10. close : open :: begin : _____

A. start

B. middle

C. again

D. end

E. continue

11. grape : vine :: apple : _____

A. pie

B. red

C. fruit

D. seed

E. tree

12. nose : smell :: tongue : _____

A. mouth

B. pink

C. taste

D. food

E. speak

13. boat : sail :: car : _____

A. drive

B. road

C. wheel

D. engine

E. fast

14. seed : plant :: egg : _____

A. shell

B. bird

C. cook

D. basket

E. nest

15. brave : cowardly :: kind : _____

A. nice

B. gentle

C. friendly

D. cruel

E. warm

16. inch : foot :: month : _____

A. day

B. time

C. calendar

D. week

E. year

17. ocean : wave :: desert : _____

A. sand dune

B. cactus

C. hot

D. camel

E. dry

18. needle : thread :: hammer : _____

A. tool

B. wood

C. nail

D. heavy

E. build

19. silent : loud :: smooth : _____

A. flat

B. rough

C. soft

D. gentle

E. quiet

20. telescope : stars :: microscope : _____

A. scientist

B. lab

C. lens

D. cells

E. glass

21. wool : sheep :: silk : _____

A. fabric

B. smooth

C. thread

D. dress

E. silkworm

22. island : water :: oasis : _____

A. desert

B. palm

C. lake

D. green

E. camel

23. page : book :: stair : _____

A. climb

B. step

C. staircase

D. floor

E. railing

24. empty : full :: asleep : _____

A. bed

B. awake

C. tired

D. dream

E. night

Section 2: Sentence Completion (Questions 25–44)

Directions: In each question below, choose the word that best completes the sentence.

25. The old wooden bridge creaked under the weight of the truck, making the driver ___ about crossing safely.

A. excited

B. confused

C. cheerful

D. worried

E. bored

26. The clever fox was able to ___ the trap that the farmer had set near the chicken coop.

A. avoid

B. build

C. enjoy

D. forget

E. repair

27. After the volcano erupted, a thick layer of ash ___ the entire village and the surrounding farmland.

A. decorated

B. cleaned

C. brightened

D. lifted

E. covered

28. The students needed to work ___ to finish the group project before the deadline at the end of the week.

A. alone

B. slowly

C. together

D. quietly

E. yesterday

29. Because the soil in the region was very ___, crops grew tall and healthy without any special fertiliser.

A. dry

B. fertile

C. rocky

D. frozen

E. sandy

30. The ancient castle had been ___ for centuries, and nobody had lived inside its crumbling stone walls.

A. crowded

B. rebuilt

C. painted

D. abandoned

E. celebrated

31. The swimmer's incredible speed in the water was the result of years of ___ practice at the pool.

A. occasional

B. careless

C. brief

D. lazy

E. dedicated

32. Unlike the barren desert, the nearby valley was green and ___ with hundreds of different plant species.

A. lush

B. dry

C. flat

D. empty

E. cold

33. The conductor raised his baton, and the entire orchestra began to play in perfect ___ without a single mistake.

A. silence

B. darkness

C. harmony

D. confusion

E. delay

34. The young artist showed great ___ by mixing colours in ways that no one in the class had ever tried before.

A. sadness

B. creativity

C. patience

D. laziness

E. strength

35. The thick canopy of leaves in the rainforest ___ most of the sunlight from reaching the forest floor below.

A. increased

B. reflected

C. brightened

D. created

E. blocked

36. The road was ___ after the heavy rainfall, so the city workers put up warning signs for drivers everywhere.

A. dry

B. wide

C. straight

D. flooded

E. repaired

37. The archaeologist carefully ___ the ancient pottery from the ground, brushing away dirt one layer at a time.

A. removed

B. buried

C. painted

D. broke

E. sold

38. Many plants in the Arctic have ___ to the extreme cold by growing very close to the ground where winds are weakest.

A. travelled

B. surrendered

C. adapted

D. objected

E. contributed

39. The spy used a ___ code that only her partner could understand to send the secret message safely across the border.

A. simple

B. hidden

C. loud

D. public

E. broken

40. The invention of the printing press was ___ because it allowed books to be produced much faster and more cheaply.

A. useless

B. boring

C. dangerous

D. confusing

E. important

41. The teacher asked the students to ___ the two stories and explain how they were alike and how they were different.

A. compare

B. forget

C. copy

D. erase

E. hide

42. The thick walls of the castle were designed to ___ the people inside from enemy attacks during times of war.

A. expose

B. entertain

C. confuse

D. protect

E. remove

43. The river had ___ its banks after three days of continuous rain, flooding the fields and low-lying roads nearby.

A. frozen

B. emptied

C. overflowed

D. dried

E. narrowed

44. The new student was very ___ at first, but after a few weeks she began making friends and speaking up in class.

A. loud

B. shy

C. rude

D. popular

E. athletic

Section 3: Verbal Classification (Questions 45–60)

Directions: The three words in each question below go together in some way. Choose the answer that belongs with them.

45. soccer, basketball, tennis

A. volleyball

B. trophy

C. athlete

D. stadium

E. uniform

46. arm, leg, hand

A. shirt

B. walk

C. body

D. elbow

E. muscle

47. ant, beetle, butterfly

A. web

B. grasshopper

C. garden

D. wing

E. small

48. pencil, marker, crayon

A. paper

B. colour

C. art

D. drawing

E. chalk

49. lake, river, ocean

A. fish

B. boat

C. pond

D. bridge

E. water

50. dentist, surgeon, nurse

A. veterinarian

B. hospital

C. patient

D. medicine

E. stethoscope

51. Canada, Mexico, Brazil

A. city

B. continent

C. English

D. Japan

E. map

52. bronze, silver, gold

A. jewellery

B. money

C. mine

D. ring

E. platinum

53. carrot, potato, onion

A. soup

B. beet

C. salad

D. farm

E. cook

54. addition, subtraction, multiplication

A. number

B. math

C. division

D. calculator

E. equals

55. compass, map, GPS

A. navigation tool

B. travel

C. north

D. car

E. road

56. violin, cello, harp

A. bow

B. concert

C. musician

D. orchestra

E. guitar

57. oxygen, hydrogen, nitrogen

A. water

B. breathing

C. science

D. helium

E. air

58. sadness, fear, anger

A. crying

B. emotion

C. face

D. mood

E. feeling

59. simile, metaphor, alliteration

A. poem

B. book

C. figurative language

D. words

E. writing

60. canoe, kayak, rowboat

A. paddle boat

B. water

C. oar

D. life jacket

E. dock

QUANTITATIVE BATTERY

Recommended Time: 30 Minutes — 54 Questions

Do not turn back to the Verbal Battery or go ahead to the Nonverbal Battery.

Section 4: Number Analogies (Questions 61–78)

Directions: In each question below, the numbers in the first two pairs follow the same rule. Find the number that completes the third pair using the same rule.

61. [3 → 9] [7 → 21] [5 → ?]

A. 10

B. 20

C. 25

D. 15

E. 30

62. [16 → 8] [10 → 5] [20 → ?]

A. 5

B. 10

C. 15

D. 4

E. 40

63. [4 → 9] [7 → 15] [10 → ?]

A. 15

B. 19

C. 20

D. 25

E. 21

64. [2 → 8] [3 → 27] [4 → ?]

A. 16

B. 32

C. 64

D. 12

E. 48

65. [8 → 3] [12 → 7] [15 → ?]

A. 10

B. 5

C. 9

D. 8

E. 11

66. [6 → 36] [8 → 64] [5 → ?]

A. 10

B. 15

C. 20

D. 25

E. 30

67. [1 → 4] [3 → 10] [6 → ?]

A. 18

B. 19

C. 12

D. 24

E. 21

68. [30 → 10] [21 → 7] [15 → ?]

A. 3

B. 6

C. 10

D. 7

E. 5

69. [9 → 14] [5 → 10] [12 → ?]

A. 17

B. 16

C. 19

D. 24

E. 15

70. [11 → 8] [20 → 17] [35 → ?]

A. 30

B. 33

C. 32

D. 31

E. 38

71. [4 → 20] [6 → 30] [9 → ?]

A. 36

B. 27

C. 54

D. 45

E. 18

72. [2 → 7] [5 → 16] [8 → ?]

A. 20

B. 24

C. 19

D. 23

E. 25

73. [40 → 20] [26 → 13] [18 → ?]

A. 12

B. 9

C. 6

D. 3

E. 36

74. [7 → 49] [3 → 9] [8 → ?]

A. 64

B. 24

C. 16

D. 56

E. 32

75. [10 → 4] [15 → 9] [20 → ?]

A. 10

B. 12

C. 14

D. 16

E. 8

76. [1 → 5] [2 → 9] [3 → ?]

A. 12

B. 15

C. 11

D. 13

E. 14

77. [50 → 25] [36 → 18] [22 → ?]

A. 12

B. 44

C. 8

D. 10

E. 11

78. [5 → 12] [9 → 20] [7 → ?]

A. 16

B. 14

C. 21

D. 15

E. 18

Section 5: Number Series (Questions 79–96)

Directions: In each question below, a sequence of numbers follows a pattern. Find the number that comes next or fills the missing position in the pattern.

79. 3, 6, 9, 12, ?

A. 13

B. 14

C. 15

D. 16

E. 18

80. 1, 3, 9, 27, ?

A. 81

B. 36

C. 54

D. 45

E. 30

81. 60, 50, 40, 30, ?

A. 25

B. 15

C. 10

D. 20

E. 35

82. 2, 3, 5, 8, 12, ?

A. 14

B. 15

C. 16

D. 18

E. 17

83. 4, 8, 16, 32, ?

A. 48

B. 64

C. 40

D. 36

E. 56

84. 6, 12, 18, 24, ?

A. 26

B. 28

C. 30

D. 32

E. 36

85. 1, 1, 2, 3, 5, 8, ?

A. 13

B. 11

C. 10

D. 12

E. 9

86. 200, 100, 50, 25, ?

A. 10

B. 20

C. 15

D. 5

E. 12.5

87. 5, 10, 20, 40, ?

A. 50

B. 60

C. 70

D. 80

E. 100

88. 10, 15, 21, 28, ?

A. 32

B. 36

C. 34

D. 35

E. 33

89. 99, 88, 77, 66, ?

A. 44

B. 50

C. 55

D. 60

E. 56

90. 1, 4, 9, 16, 25, ?

A. 30

B. 32

C. 33

D. 35

E. 36

91. 8, 16, 24, 32, ?

A. 40

B. 36

C. 38

D. 42

E. 48

92. 2, 6, 18, 54, ?

A. 72

B. 108

C. 60

D. 162

E. 216

93. 75, 70, 65, 60, ?

A. 50

B. 55

C. 45

D. 58

E. 52

94. 1, 2, 4, 7, 11, 16, ?

A. 18

B. 20

C. 22

D. 21

E. 25

95. 3, 9, 27, 81, ?

A. 162

B. 90

C. 108

D. 100

E. 243

96. 1000, 500, 250, 125, ?

A. 62.5

B. 100

C. 50

D. 75

E. 60

Section 6: Number Puzzles (Questions 97–114)

Directions: In each question below, find the number that makes the equation true.

97. 7 + ? = 19

A. 11

B. 12

C. 13

D. 26

E. 10

98. ? × 6 = 42

A. 6

B. 8

C. 9

D. 36

E. 7

99. 25 − ? = 9

A. 14

B. 34

C. 15

D. 16

E. 17

100. 63 ÷ ? = 9

A. 7

B. 8

C. 6

D. 54

E. 9

101. ? + 23 = 40

A. 63

B. 23

C. 17

D. 13

E. 20

102. 5 × ? = 45

A. 7

B. 9

C. 8

D. 40

E. 50

103. $4 \times ? - 3 = 25$

A. 5

B. 6

C. 8

D. 22

E. 7

104. $? - 14 = 28$

A. 14

B. 32

C. 38

D. 42

E. 56

105. $8 \times 4 = ? + 12$

A. 20

B. 32

C. 44

D. 12

E. 24

106. ▲ + ▲ + ▲ + ▲ = 36. What is ▲?

A. 6

B. 12

C. 9

D. 4

E. 18

107. 72 ÷ ? = 9

A. 7

B. 8

C. 9

D. 6

E. 63

108. 3 × ? + 4 = 22

A. 6

B. 7

C. 8

D. 18

E. 5

109. ? + ? + ? = 45. What is ?

A. 9

B. 22

C. 45

D. 5

E. 15

110. 56 ÷ 7 = ? − 3

A. 8

B. 5

C. 14

D. 11

E. 7

111. ★ + ★ = 18. ★ × 2 = ?

A. 9

B. 36

C. 18

D. 27

E. 20

112. 24 + ? = 9 × 4

A. 36

B. 12

C. 24

D. 6

E. 16

113. (? + 5) × 3 = 24

A. 3

B. 8

C. 5

D. 19

E. 6

114. 81 ÷ 9 = ? + 4

A. 13

B. 4

C. 9

D. 36

E. 5

NONVERBAL BATTERY

Recommended Time: 30 Minutes — 62 Questions

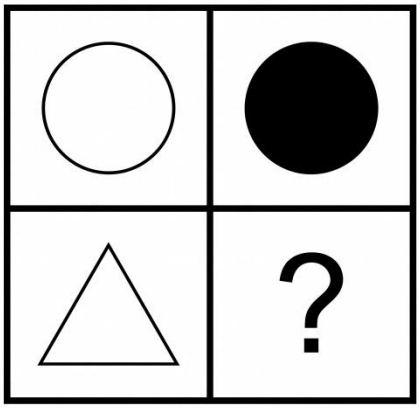
Do not turn back to the Quantitative Battery.

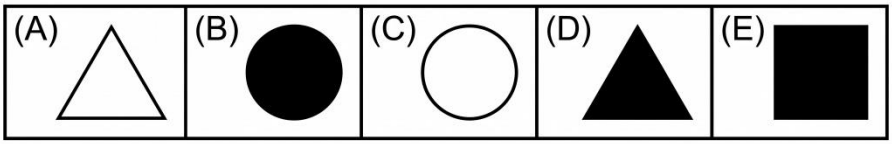
Section 7: Figure Matrices (Questions 115–136)

Directions: In each question below, the shapes in the boxes follow a rule. Find the shape that completes the pattern in the empty box.

115. Look at the shapes in the grid below. Which answer choice completes the grid?

Figure PQ-1





A. a white-outlined triangle

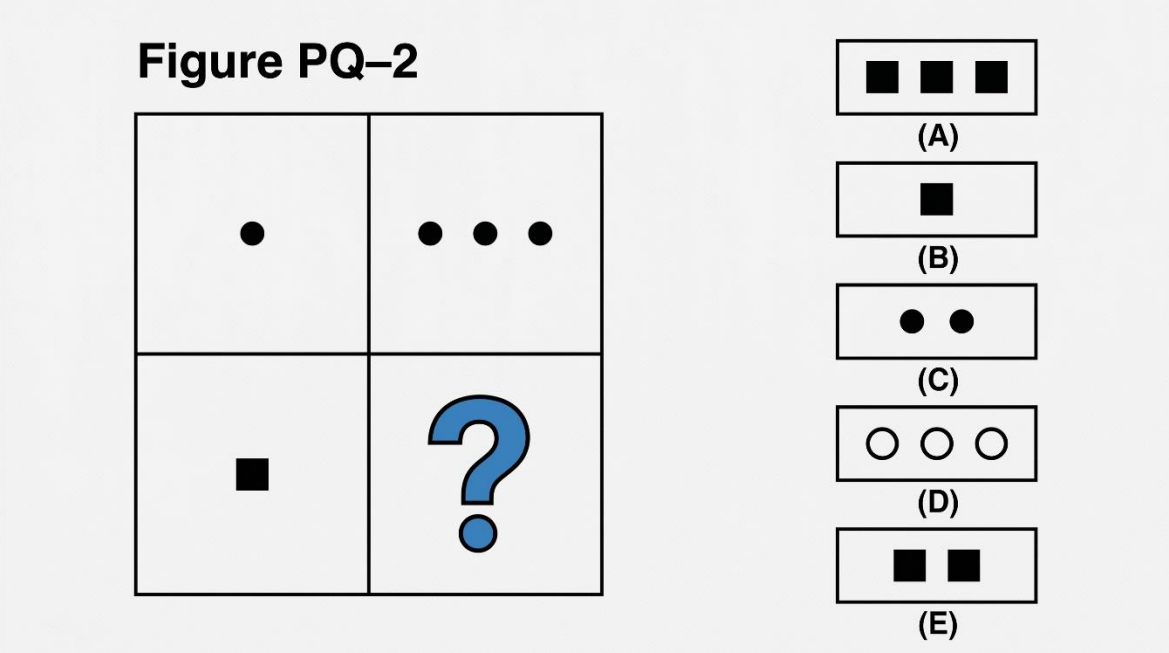
B. a black-filled circle

C. a white-outlined circle

D. a black-filled triangle

E. a black-filled square

116. Look at the shapes in the grid below. Which answer choice completes the grid?



A. three small black squares in a horizontal row

B. one black square

C. two black dots

D. three black circles

E. two black squares

117. Look at the shapes in the grid below. Which answer choice completes the grid?

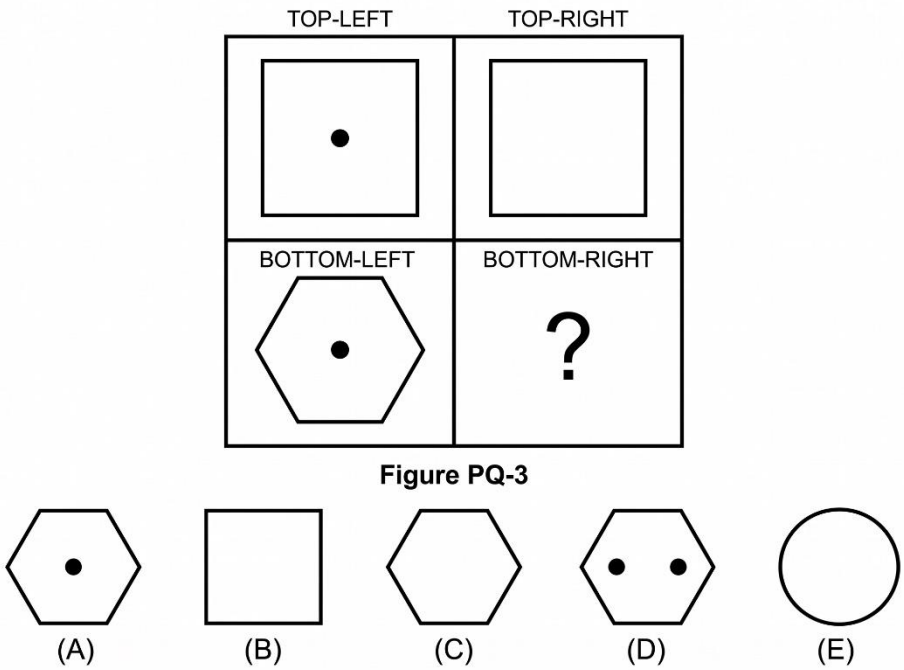


Figure PQ-3

A. a hexagon with a dot

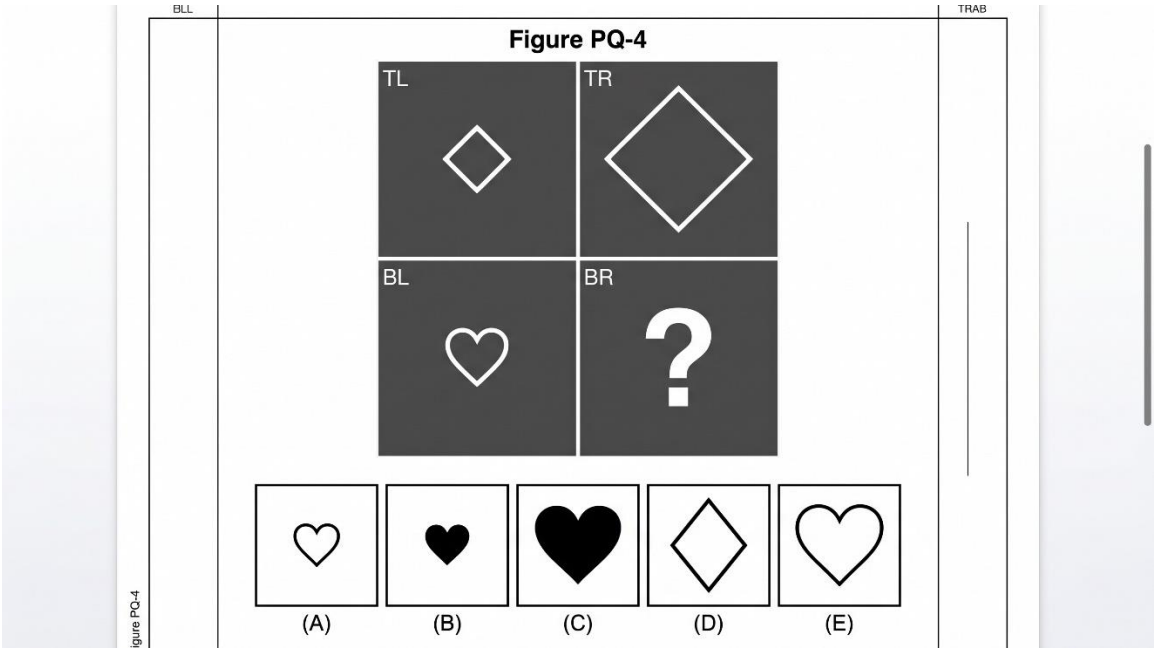
B. a square with no dot

C. a hexagon with no dot

D. a hexagon with two dots

E. a circle with no dot

118. Look at the shapes in the grid below. Which answer choice completes the grid?



A. a small white-outlined heart

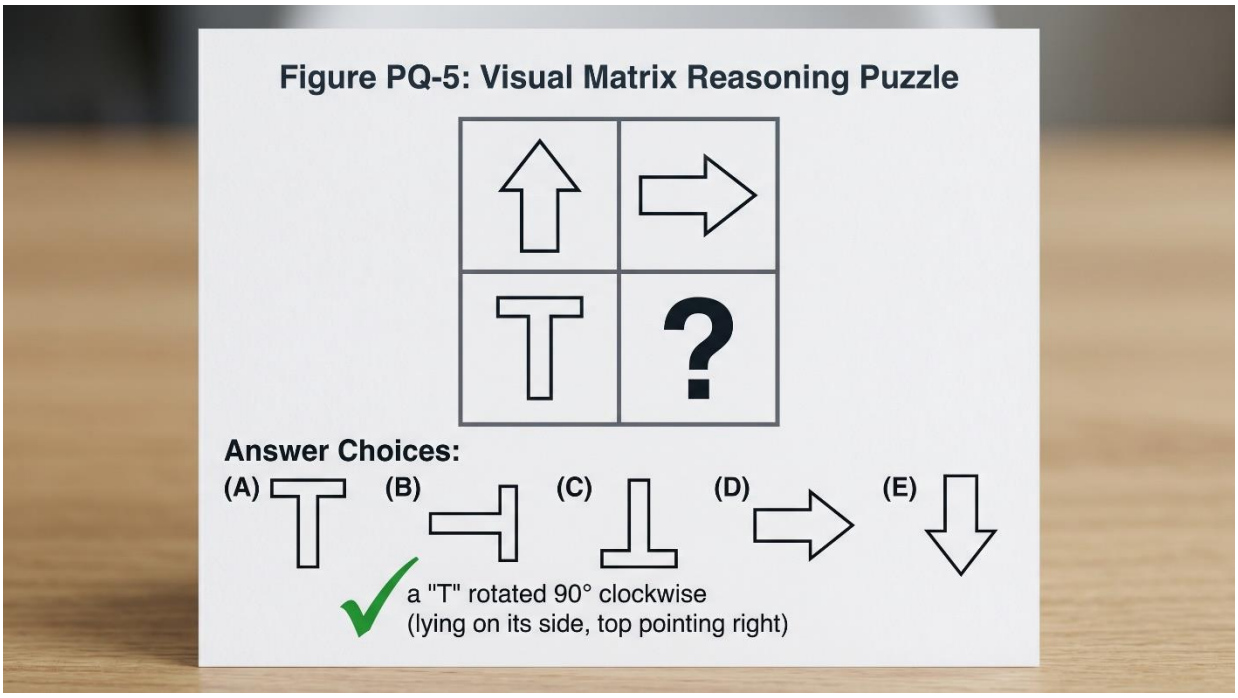
B. a small black-filled heart

C. a large black-filled heart

D. a large white-outlined diamond

E. a large white-outlined heart

119. Look at the shapes in the grid below. Which answer choice completes the grid?



A. a "T" standing upright

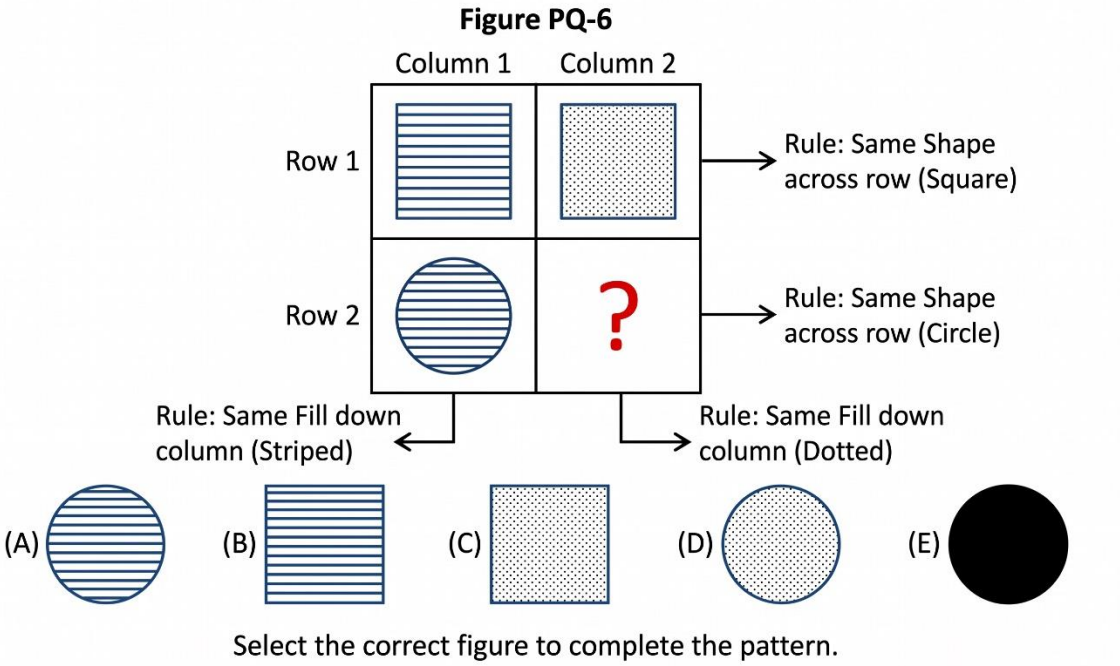
B. a "T" rotated 90° clockwise

C. a "T" upside down

D. an arrow pointing right

E. an arrow pointing down

120. Look at the shapes in the grid below. Which answer choice completes the grid?



A. a striped circle

B. a striped square

C. a dotted square

D. a dotted circle

E. a black-filled circle

121. Look at the shapes in the grid below. Which answer choice completes the grid?

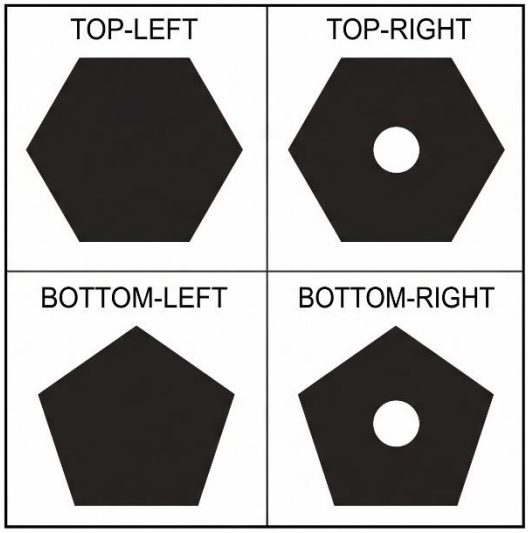


Figure PQ-7 (Solved)

Answer: (A) a large black-filled pentagon with a small white circle cut out of the centre

A. a black-filled pentagon with a small white circle cut out of the centre

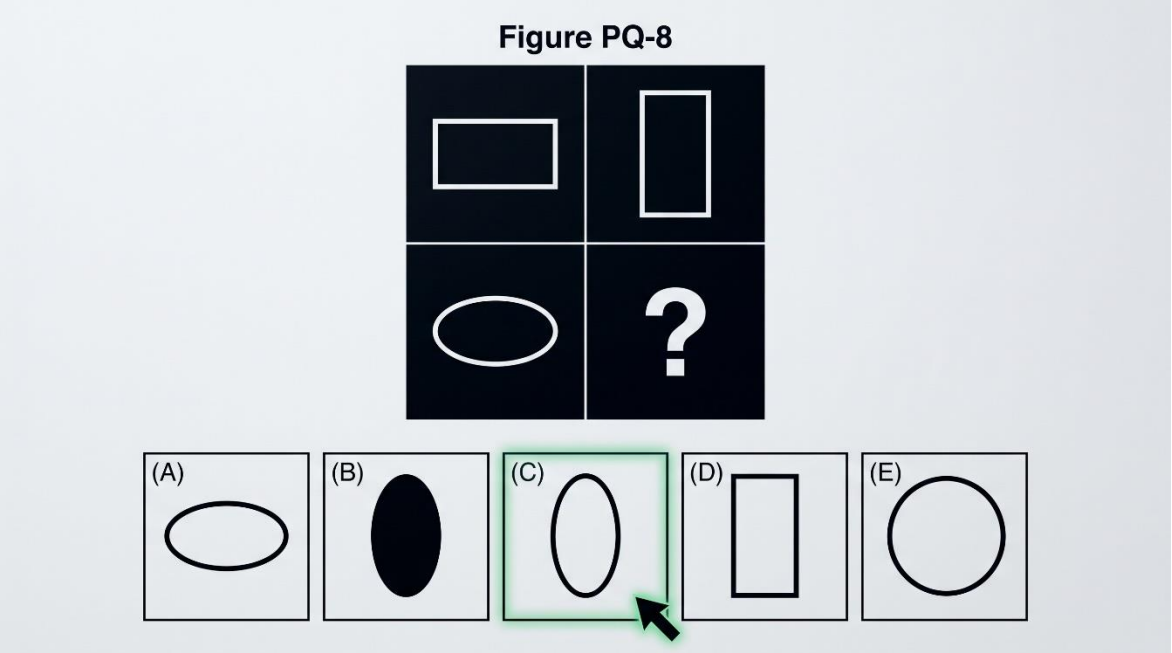
B. a white-outlined pentagon

C. a black-filled hexagon with a white circle

D. a black-filled pentagon with no cutout

E. a dotted pentagon

122. Look at the shapes in the grid below. Which answer choice completes the grid?



A. an oval oriented horizontally

B. a black-filled oval oriented vertically

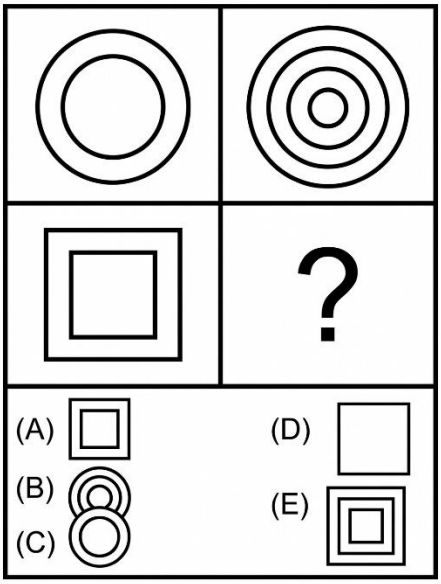
C. an oval oriented vertically

D. a rectangle oriented vertically

E. a circle

123. Look at the shapes in the grid below. Which answer choice completes the grid?

Figure PQ-9



A. two concentric squares

B. three concentric circles

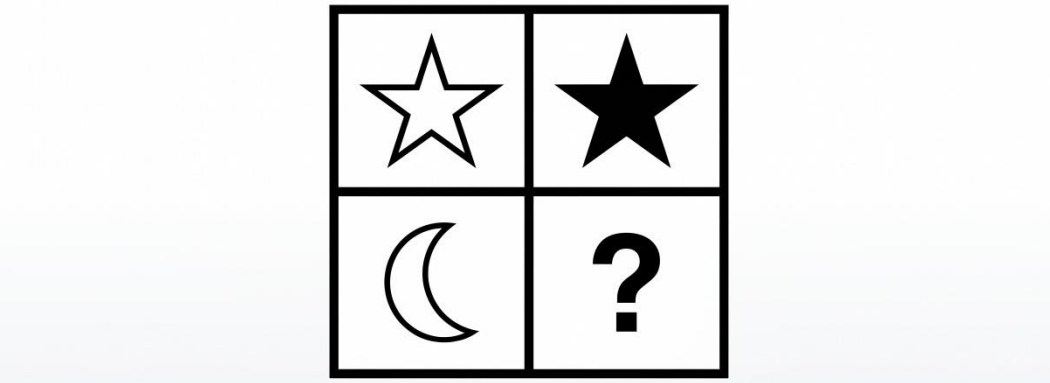
C. two concentric circles

D. one square

E. three concentric squares

124. Look at the shapes in the grid below. Which answer choice completes the grid?

[Figure PQ-10]



A. a white-outlined crescent

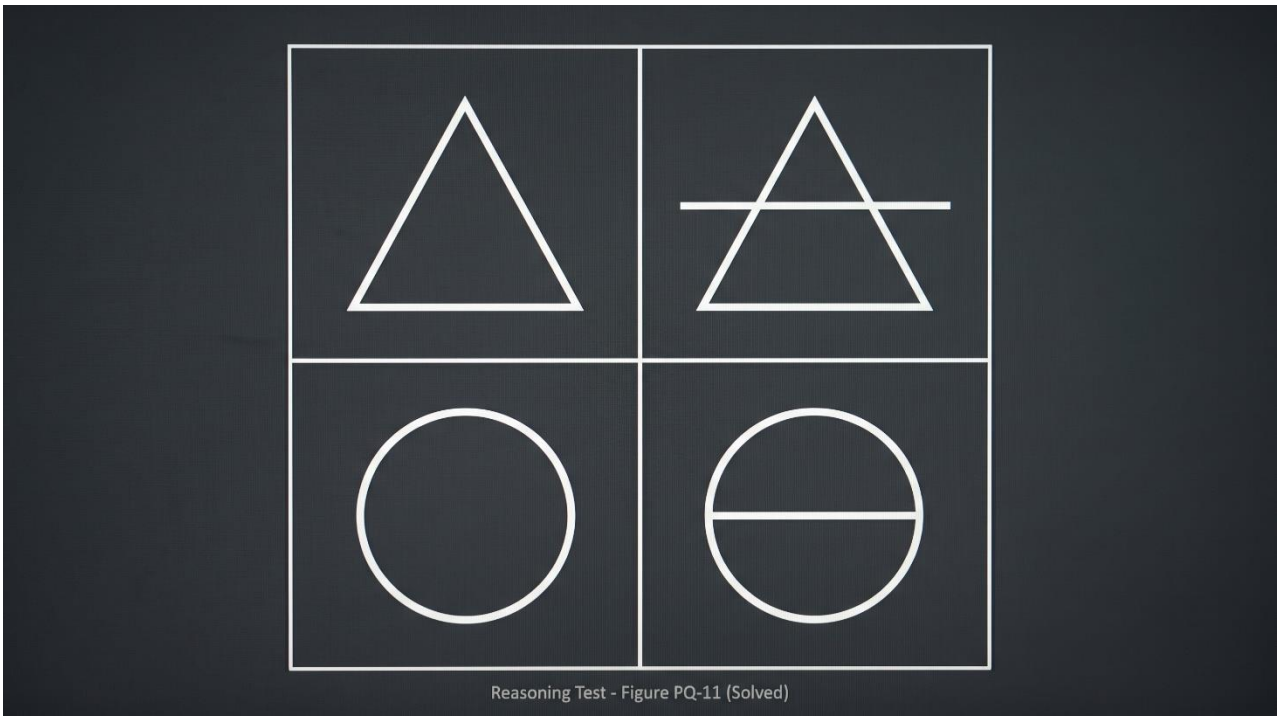
B. a black-filled crescent moon

C. a black-filled star

D. a white-outlined star

E. a black-filled circle

125. Look at the shapes in the grid below. Which answer choice completes the grid?



A. a circle with a vertical line

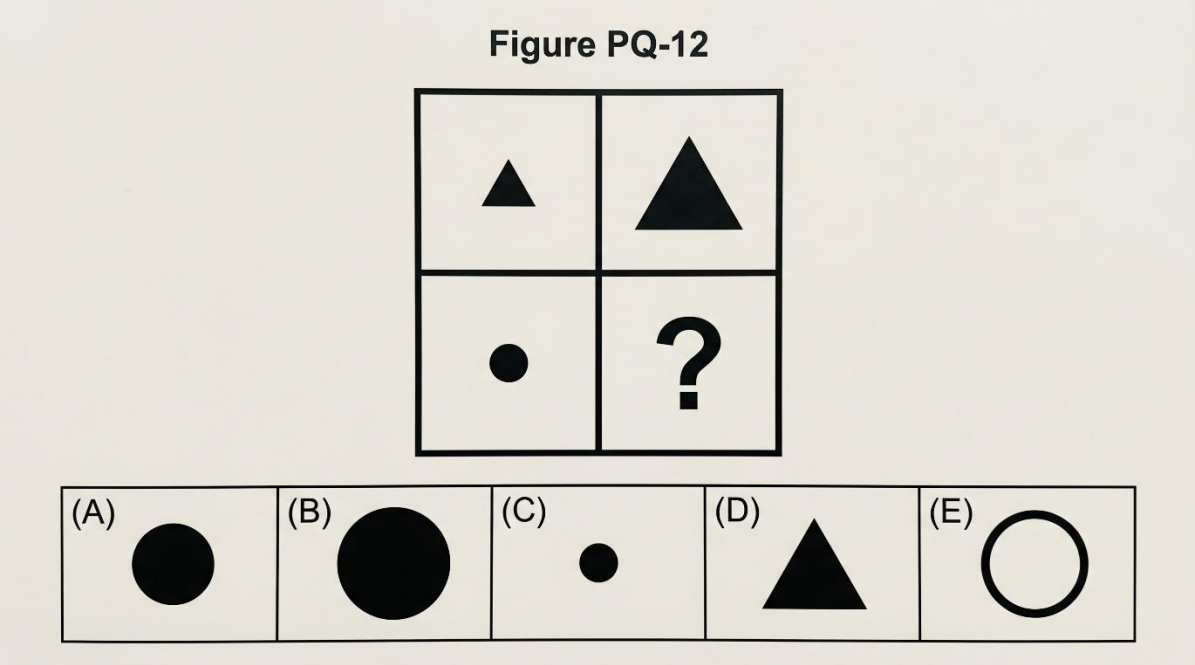
B. a circle with a diagonal line

C. a triangle with a horizontal line

D. a circle with a horizontal line through its centre

E. a circle with no line

126. Look at the shapes in the grid below. Which answer choice completes the grid?



A. a medium black-filled circle

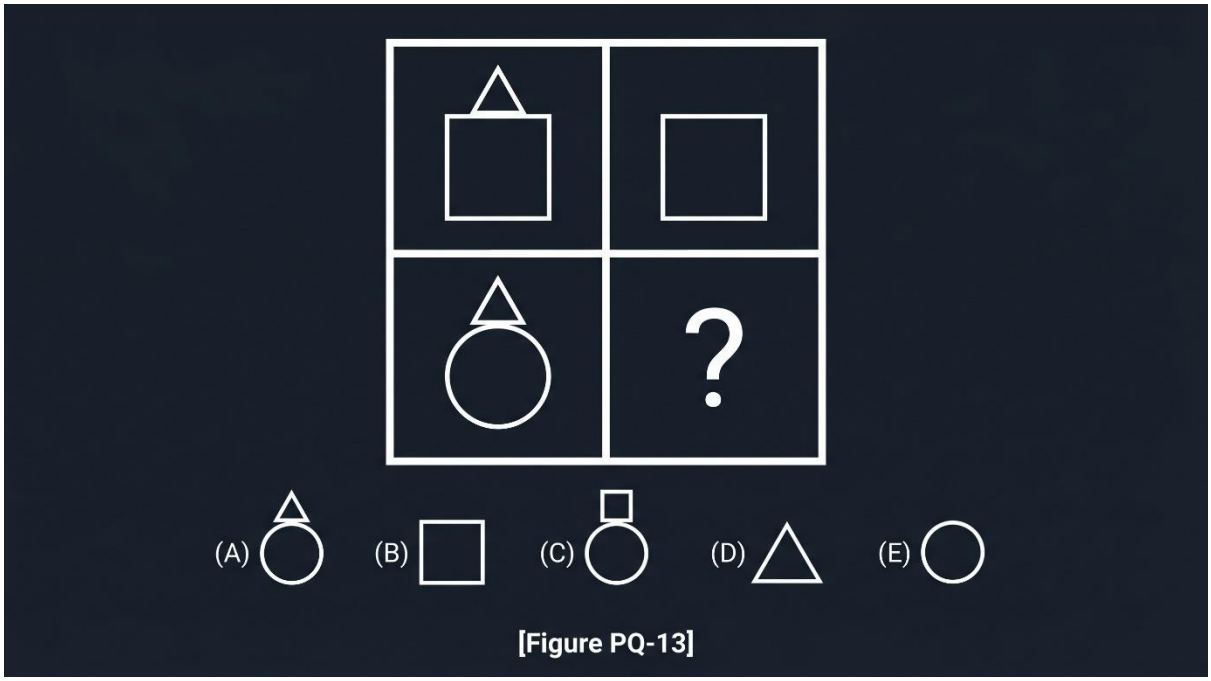
B. a large black-filled circle

C. a small black-filled circle

D. a medium black-filled triangle

E. a medium white-outlined circle

127. Look at the shapes in the grid below. Which answer choice completes the grid?



[Figure PQ-13]

A. a circle with a triangle on top

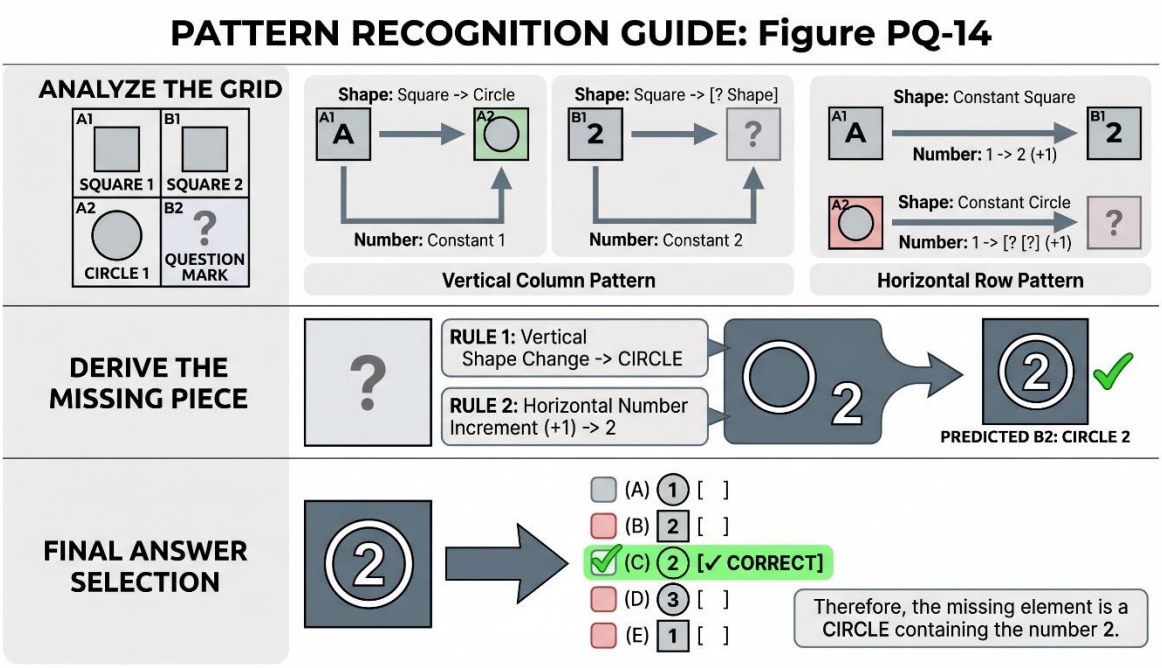
B. a square with no shape on top

C. a circle with a square on top

D. a triangle with no shape on top

E. a circle with no shape on top

128. Look at the shapes in the grid below. Which answer choice completes the grid?



A. a circle containing "1"

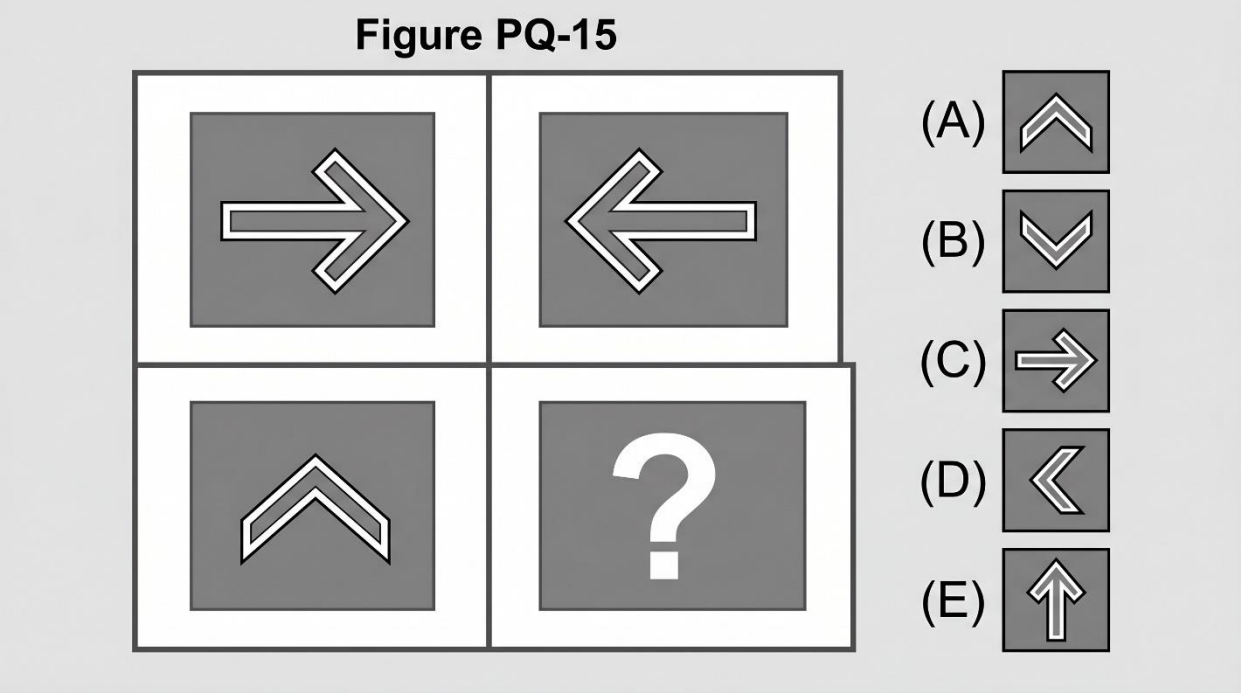
B. a square containing "2"

C. a circle containing "2"

D. a circle containing "3"

E. a square containing "1"

129. Look at the shapes in the grid below. Which answer choice completes the grid?



A. an upward-pointing chevron

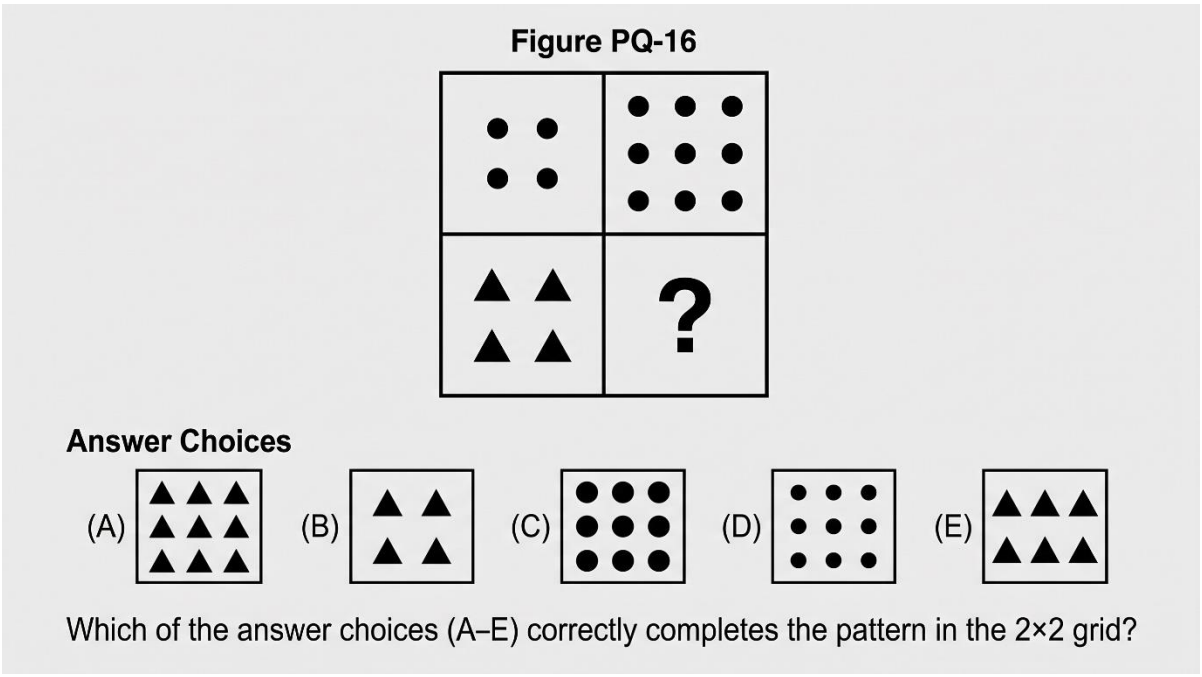
B. a downward-pointing chevron

C. a right-pointing arrow

D. a left-pointing chevron

E. an upward-pointing arrow

130. Look at the shapes in the grid below. Which answer choice completes the grid?



A. nine small triangles in a 3×3 pattern

B. four small triangles in 2×2

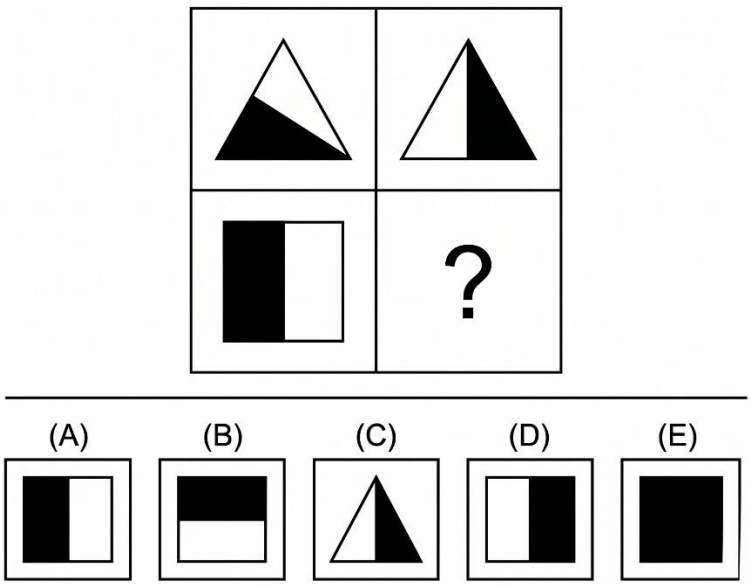
C. nine small circles in 3×3

D. nine small dots in 3×3

E. six small triangles in 2×3

131. Look at the shapes in the grid below. Which answer choice completes the grid?

Figure PQ-17:



A. a square with left half shaded

B. a square with top half shaded

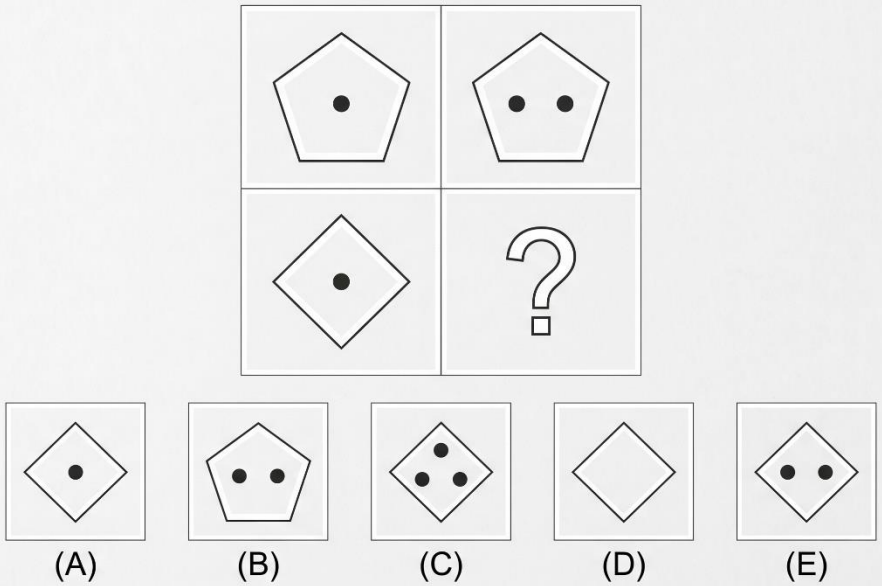
C. a triangle with right half shaded

D. a square with its right half shaded black

E. a fully black square

132. Look at the shapes in the grid below. Which answer choice completes the grid?

[Figure PQ-18]



A. a diamond with one dot

B. a pentagon with two dots

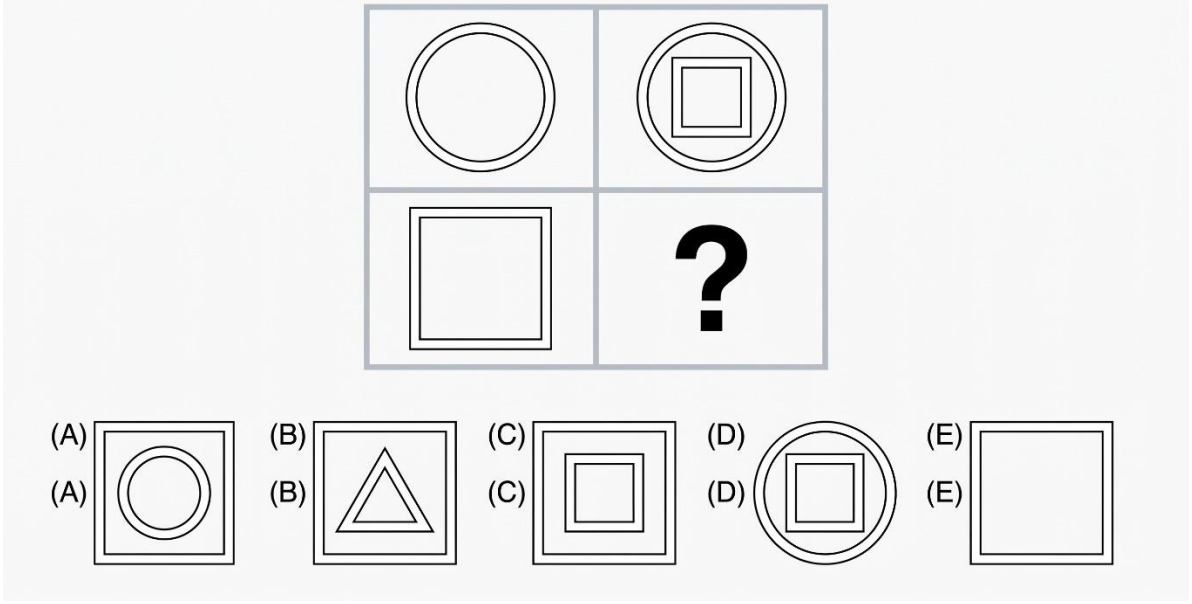
C. a diamond with three dots

D. a diamond with no dots

E. a diamond with two dots inside

133. Look at the shapes in the grid below. Which answer choice completes the grid?

Figure PQ-19: Visual Analogy Puzzle.



A. a square with a circle inside

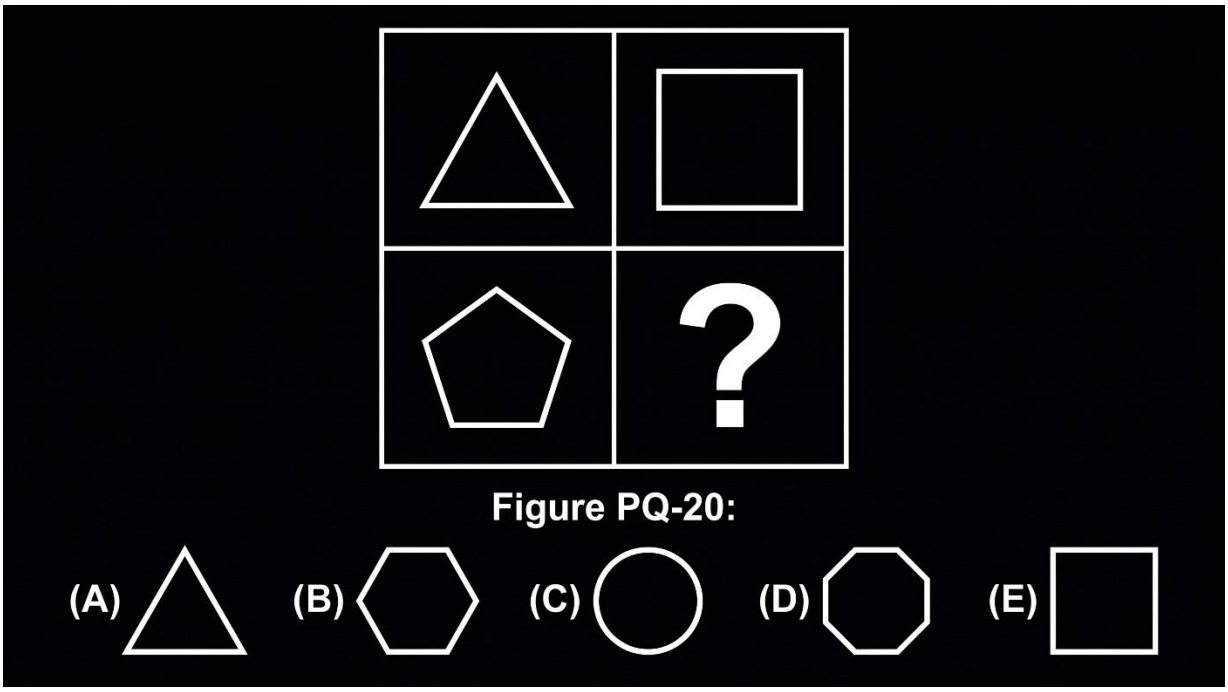
B. a square with a triangle inside

C. a square with a small square inside

D. a circle with a square inside

E. a square with no shape inside

134. Look at the shapes in the grid below. Which answer choice completes the grid?



A. a triangle

B. a hexagon (6 sides)

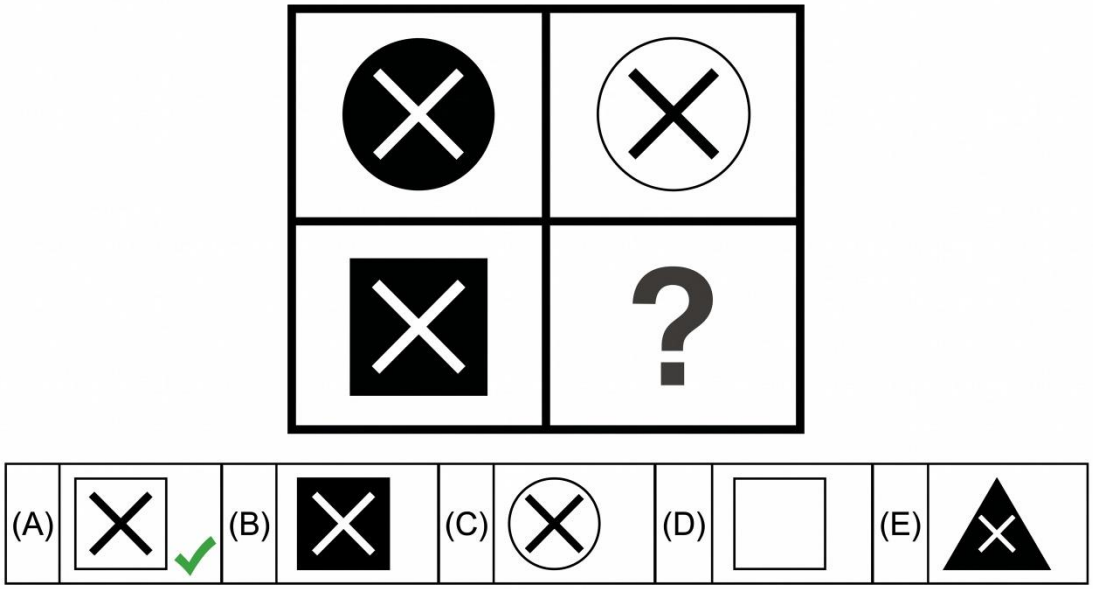
C. a circle

D. an octagon (8 sides)

E. a square

135. Look at the shapes in the grid below. Which answer choice completes the grid?

Figure PQ-21: Matrix Puzzle



A. a white-outlined square with a black "X" through it

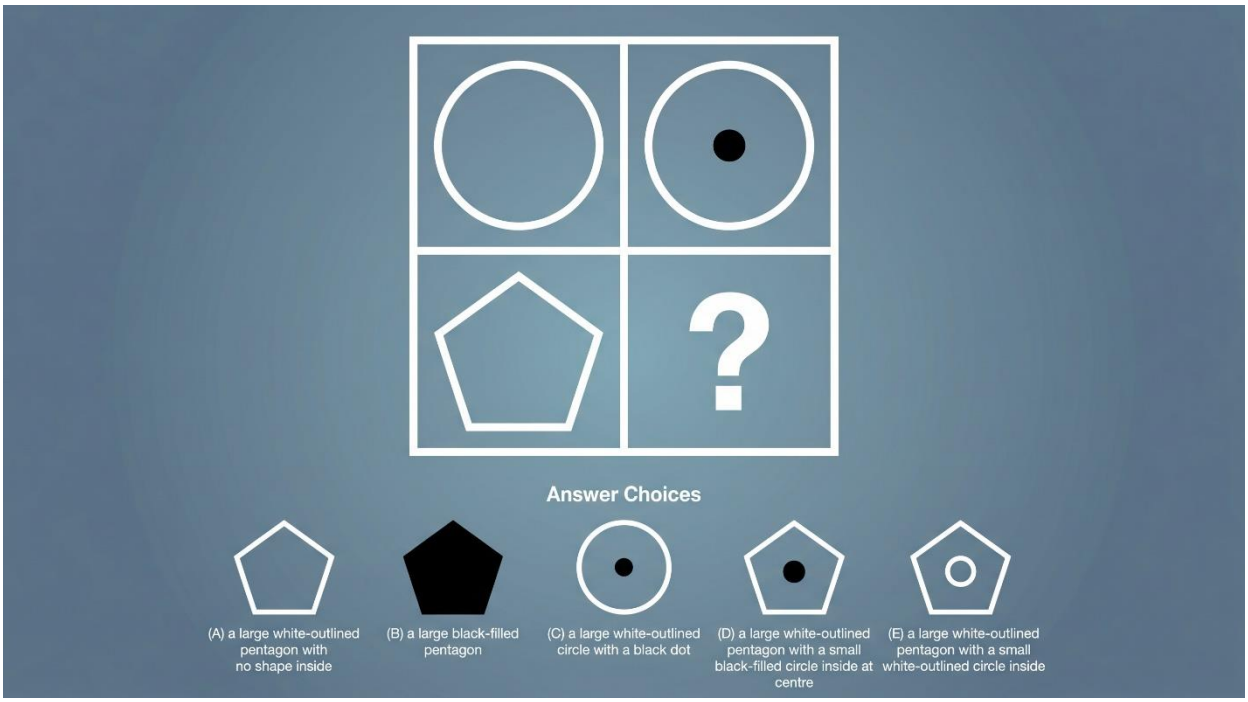
B. a black-filled square with a white "X"

C. a white-outlined circle with a black "X"

D. a white-outlined square with no "X"

E. a black-filled triangle with a white "X"

136. Look at the shapes in the grid below. Which answer choice completes the grid?



A. a pentagon with no shape inside

B. a black-filled pentagon

C. a circle with a black dot

D. a pentagon with a small black-filled circle inside

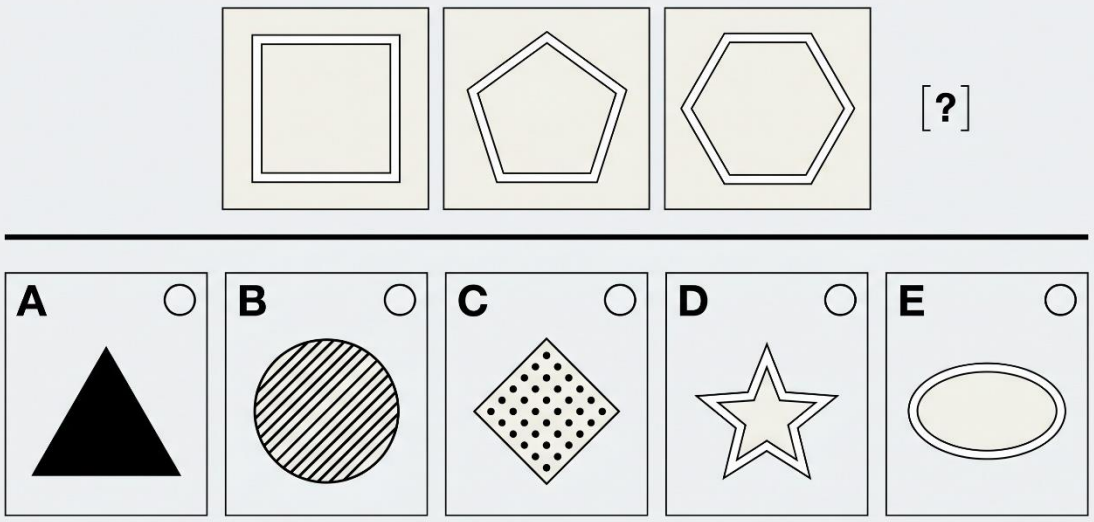
E. a pentagon with a small white-outlined circle inside

Section 8: Figure Classification (Questions 137–158)

Directions: In each question below, the three shapes at the top go together in some way. Choose the answer choice that goes with them.

137. The three shapes are: a white-outlined square, a white-outlined pentagon, a white-outlined hexagon (all are white-outlined).

Figure PQ-23



A. a black-filled triangle

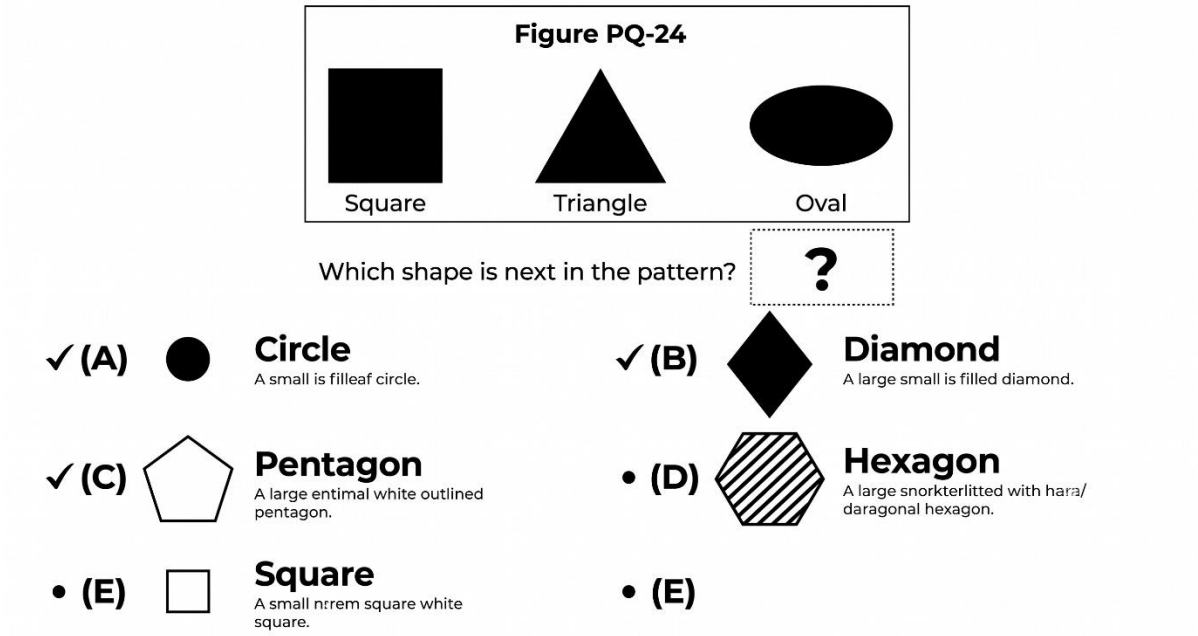
B. a striped circle

C. a dotted diamond

D. a white-outlined star

E. a white-outlined oval

138. The three shapes are: a large black-filled square, a large black-filled triangle, a large black-filled oval.



A. a small black-filled circle

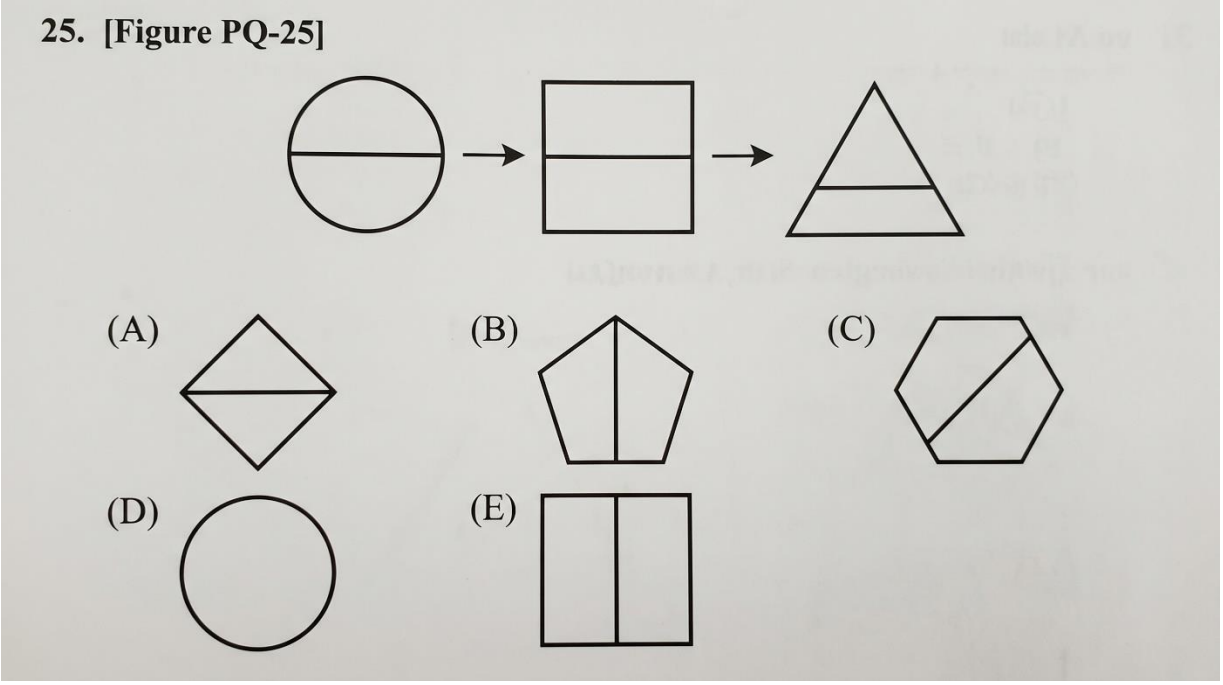
B. a large black-filled diamond

C. a large white-outlined pentagon

D. a large striped hexagon

E. a small white-outlined square

139. The three shapes are: a circle with a single horizontal line through its centre, a square with a single horizontal line through its centre, a triangle with a single horizontal line through its centre.



A. a diamond with a horizontal line through its centre

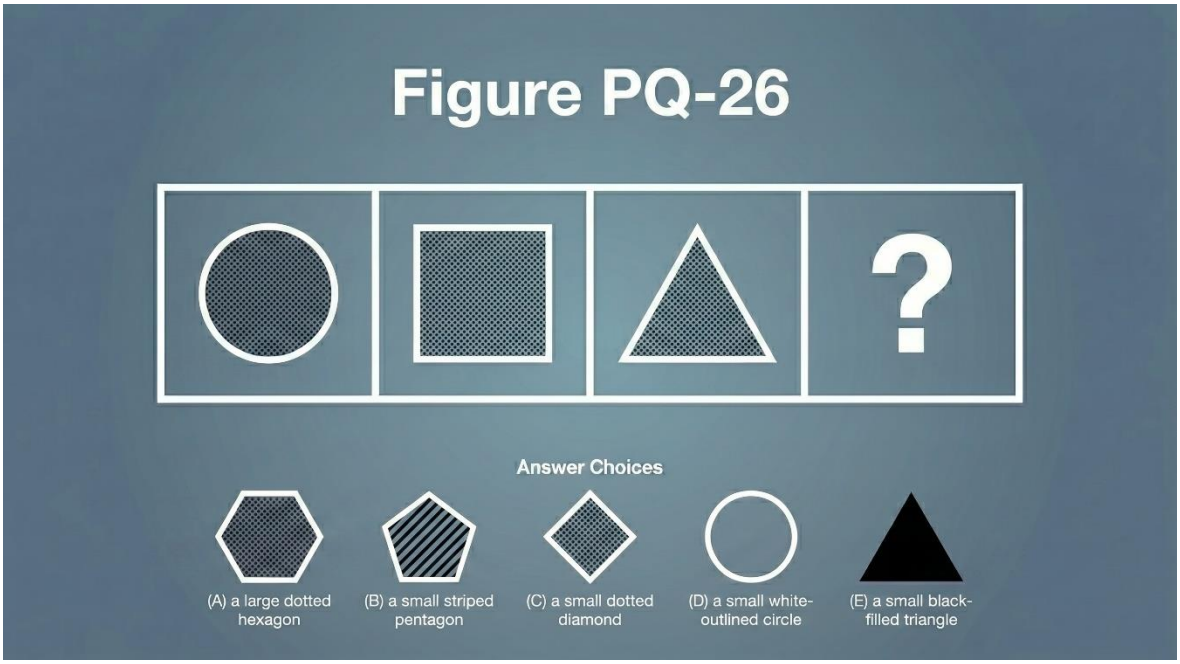
B. a pentagon with a vertical line

C. a hexagon with a diagonal line

D. a circle with no line

E. a square with a vertical line

140. The three shapes are: a small dotted circle, a small dotted square, a small dotted triangle.



A. a large dotted hexagon

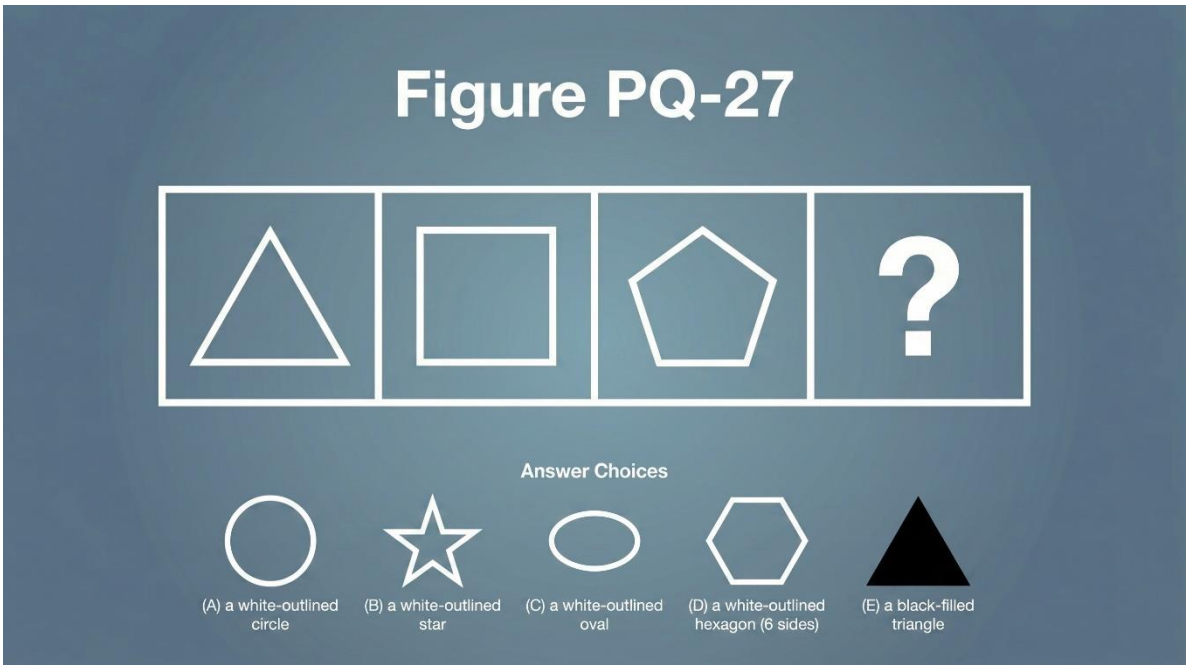
B. a small striped pentagon

C. a small dotted diamond

D. a small white-outlined circle

E. a small black-filled triangle

141. The three shapes are: a white-outlined triangle (3 sides), a white-outlined square (4 sides), a white-outlined pentagon (5 sides).



A. a circle

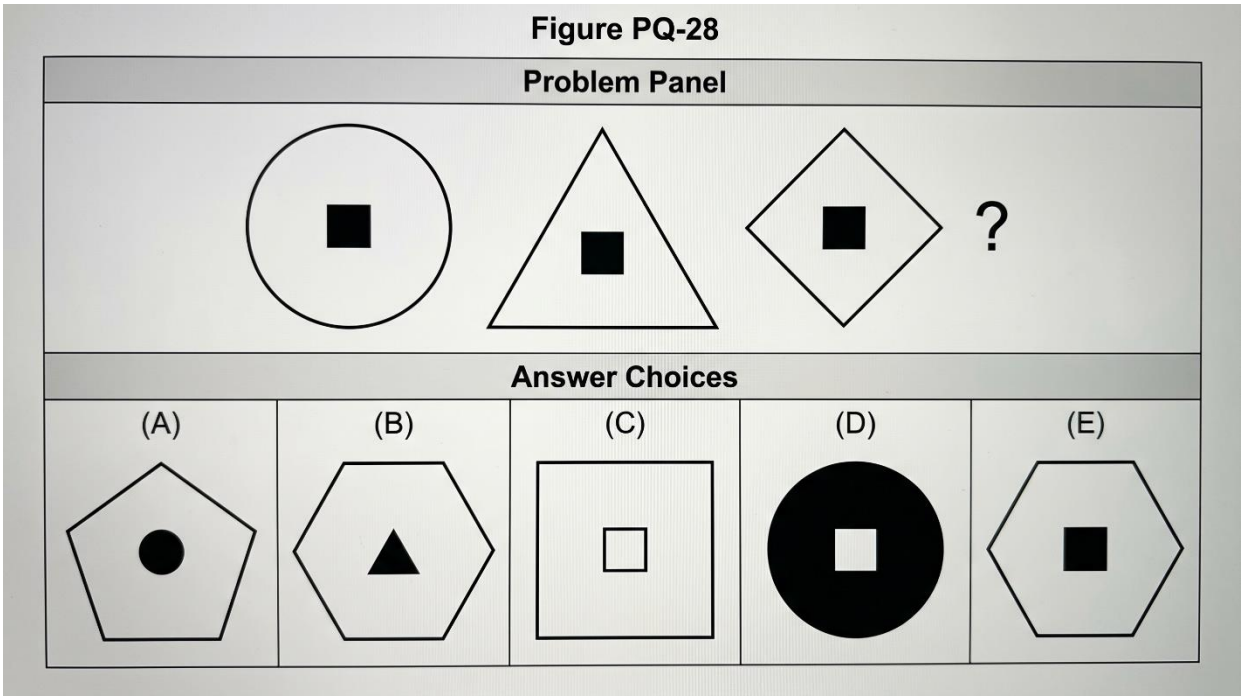
B. a star

C. an oval

D. a hexagon (6 sides)

E. a black-filled triangle

142. The three shapes are: a large white-outlined circle containing a small black-filled square inside, a large white-outlined triangle containing a small black-filled square inside, a large white-outlined diamond containing a small black-filled square inside.



A. a pentagon with a small black circle inside

B. a hexagon with a small black triangle inside

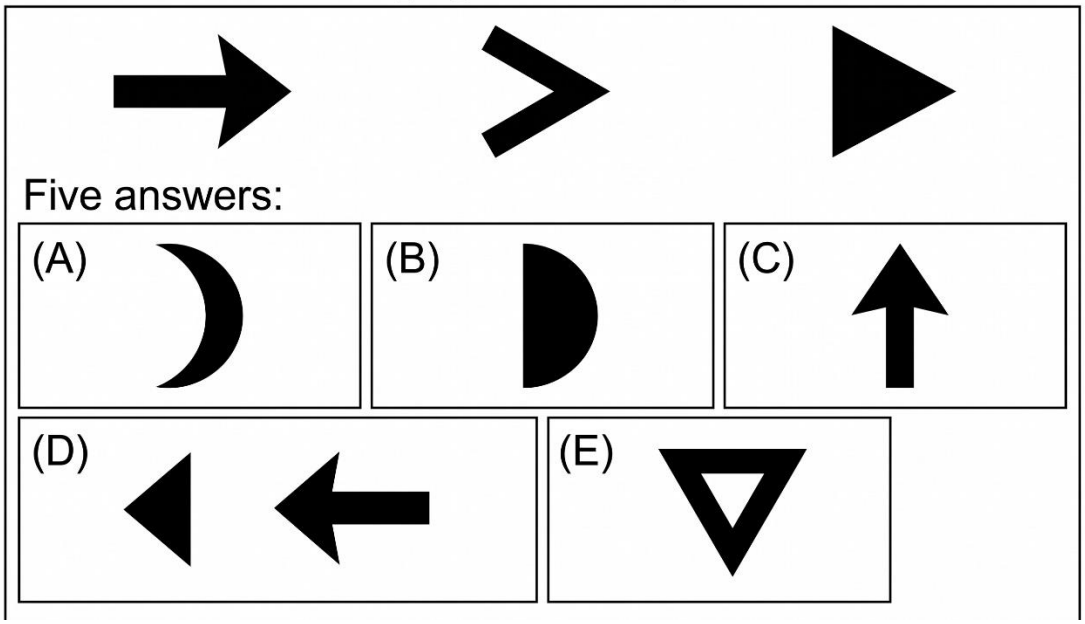
C. a square with a small white square inside

D. a black-filled circle with a white square inside

E. a hexagon with a small black-filled square inside

143. The three shapes are: a white-outlined right-pointing arrow, a white-outlined right-pointing chevron, a white-outlined right-pointing triangle.

[Figure PQ-29]



A. a right-pointing crescent

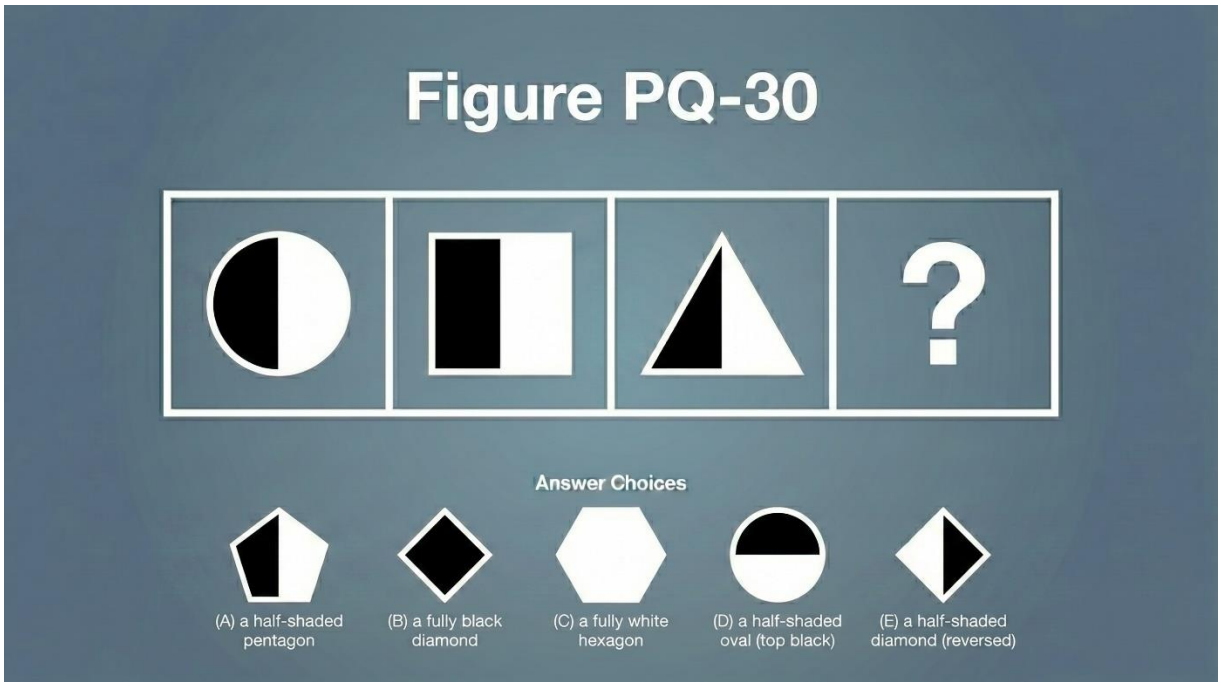
B. a right-pointing half-circle

C. an upward-pointing arrow

D. a left-pointing arrow

E. a downward-pointing triangle

144. The three shapes are: a half-shaded circle (left half black, right half white), a half-shaded square (left half black, right half white), a half-shaded triangle (left half black, right half white).



A. a half-shaded pentagon (left black, right white)

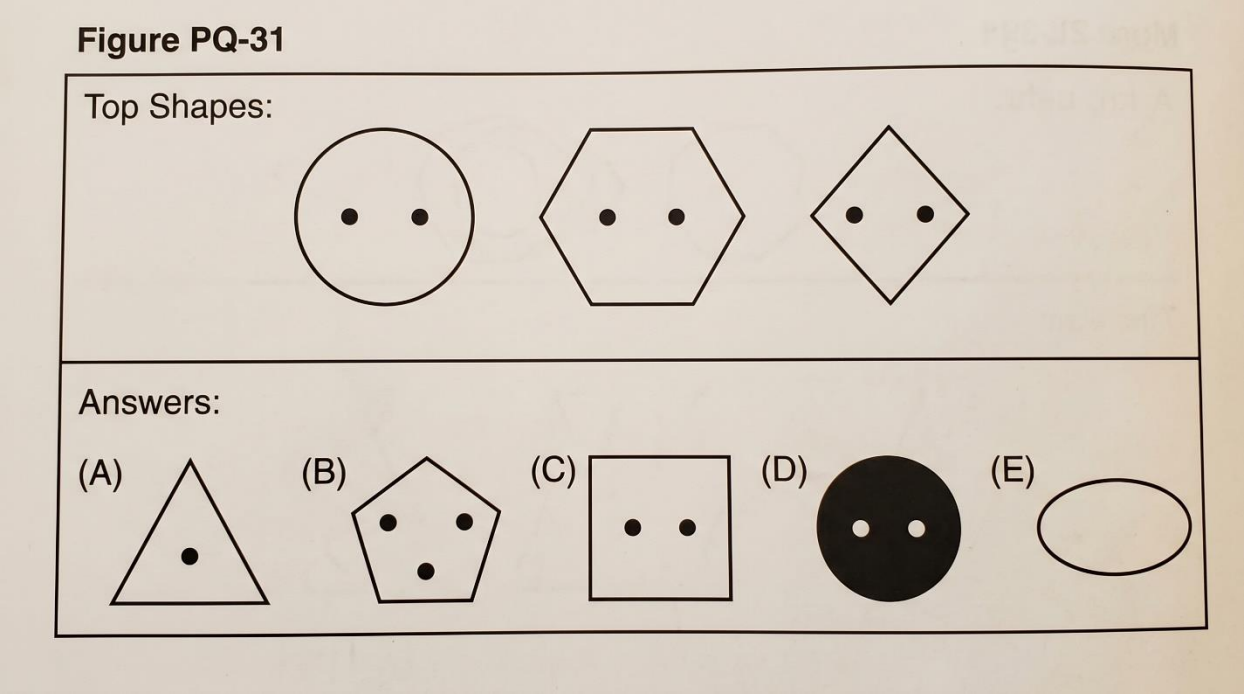
B. a fully black diamond

C. a fully white hexagon

D. a half-shaded oval (top/bottom split)

E. a half-shaded diamond (reversed sides)

145. The three shapes are: a white-outlined circle with two dots inside, a white-outlined hexagon with two dots inside, a white-outlined diamond with two dots inside.



A. a triangle with one dot

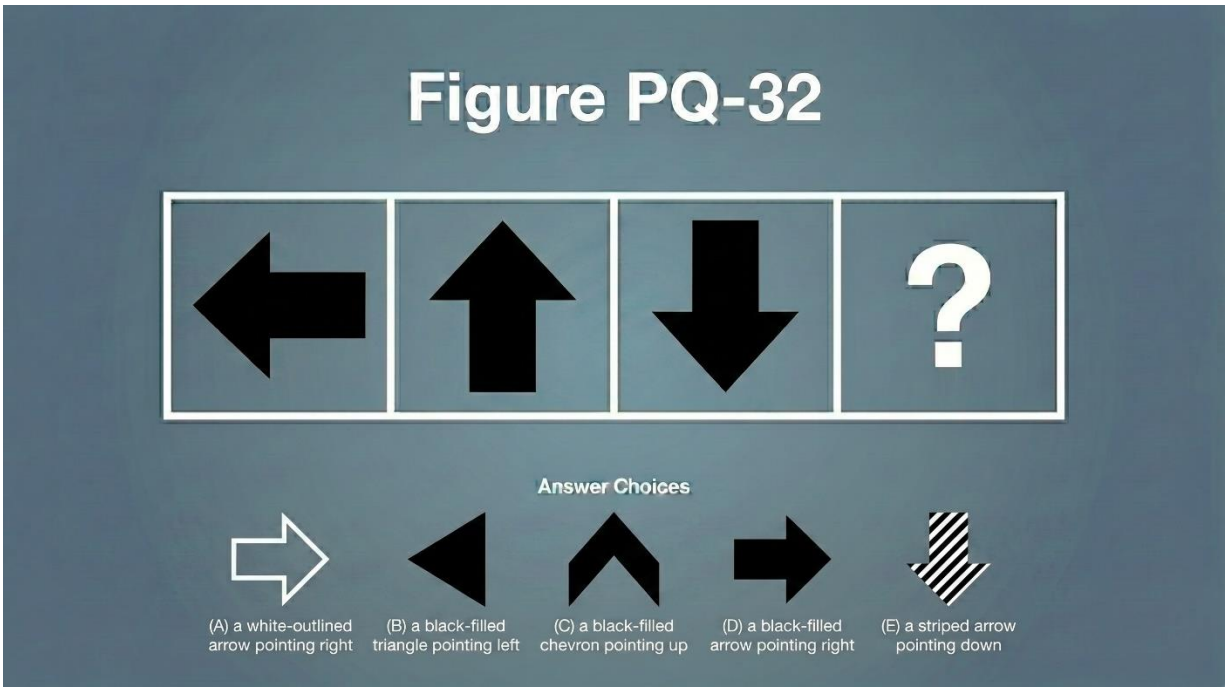
B. a pentagon with three dots

C. a square with two dots inside

D. a black-filled circle with two dots

E. an oval with no dots

146. The three shapes are: a black-filled arrow pointing left, a black-filled arrow pointing up, a black-filled arrow pointing down.



A. a white-outlined arrow pointing right

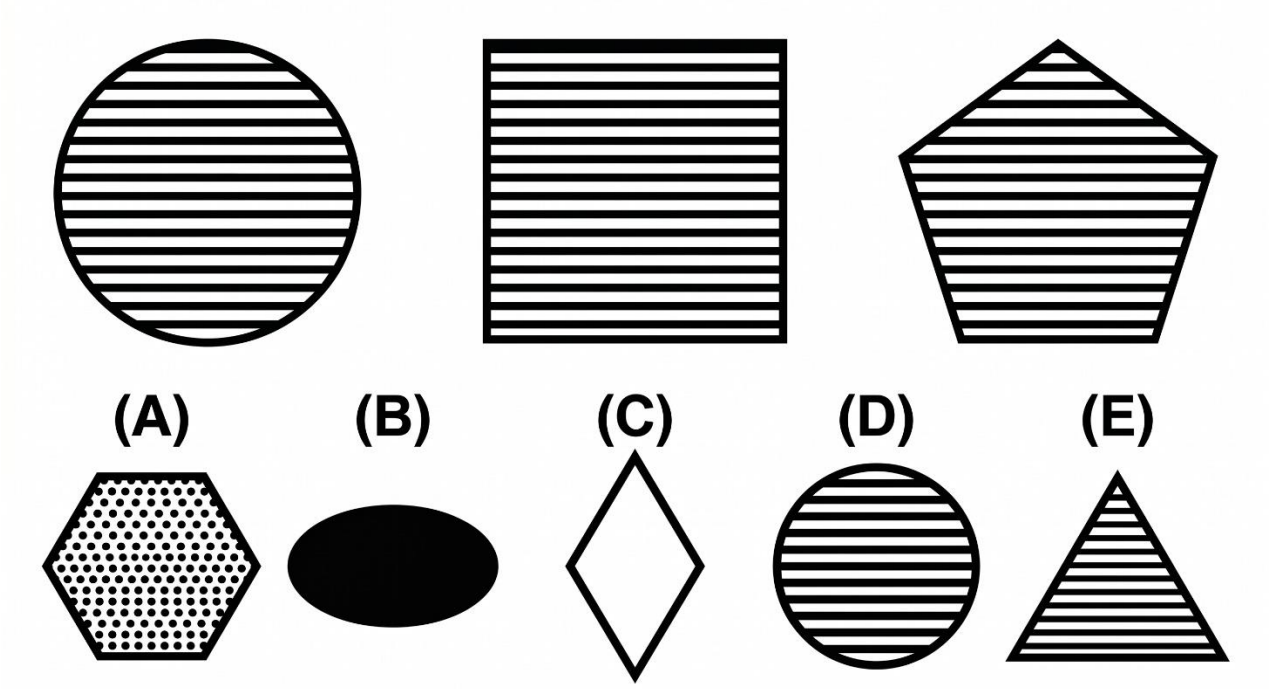
B. a black-filled triangle pointing left

C. a black-filled chevron pointing up

D. a black-filled arrow pointing right

E. a striped arrow pointing down

147. The three shapes are: a striped circle, a striped square, a striped pentagon.



A. a dotted hexagon

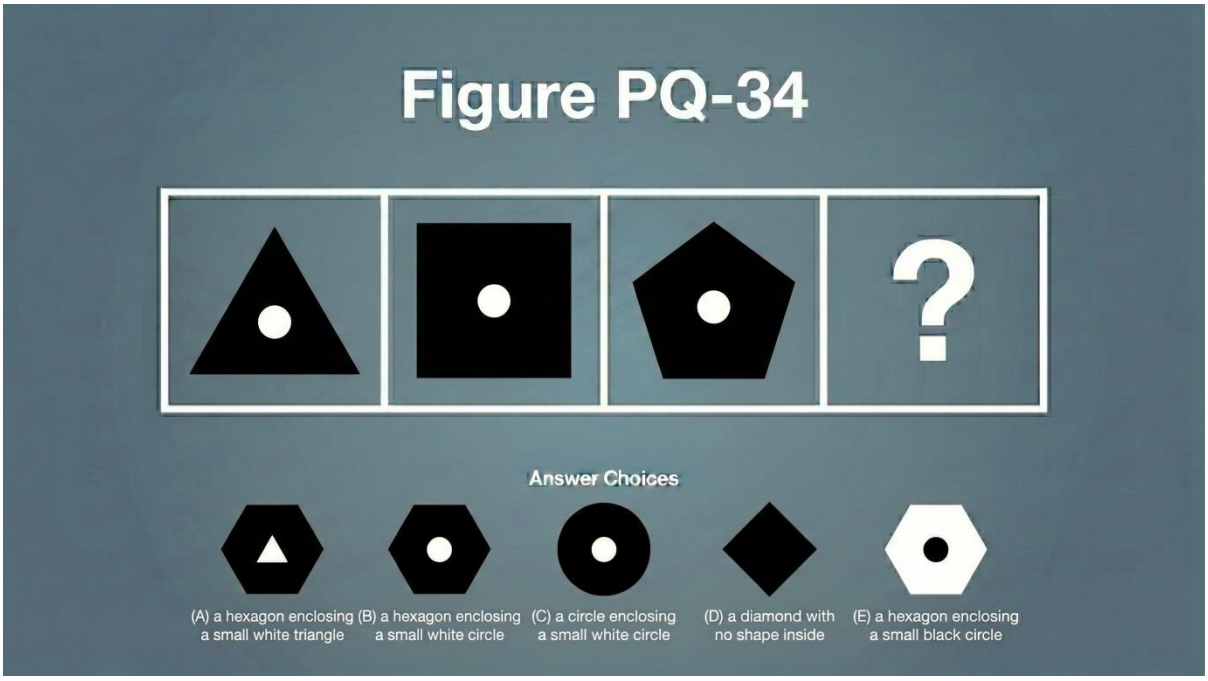
B. a black-filled oval

C. a white-outlined diamond

D. a striped circle

E. a striped triangle

148. The three shapes are: a large white-outlined triangle with a small white-outlined circle inside, a large white-outlined square with a small white-outlined circle inside, a large white-outlined pentagon with a small white-outlined circle inside.



A. a hexagon with a small white triangle inside

B. a hexagon with a small white circle inside

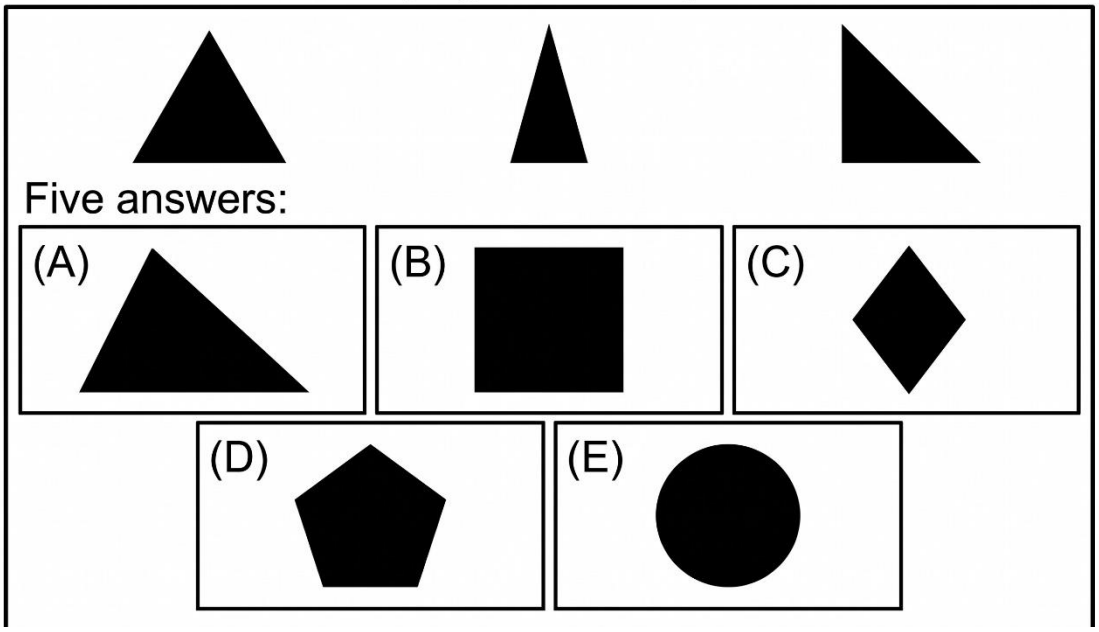
C. a circle with a small white circle inside

D. a diamond with nothing inside

E. a hexagon with a small black circle inside

149. The three shapes are: a white-outlined equilateral triangle, a white-outlined isosceles triangle, a white-outlined right triangle — all triangles.

[Figure PQ-35]



A. a scalene triangle

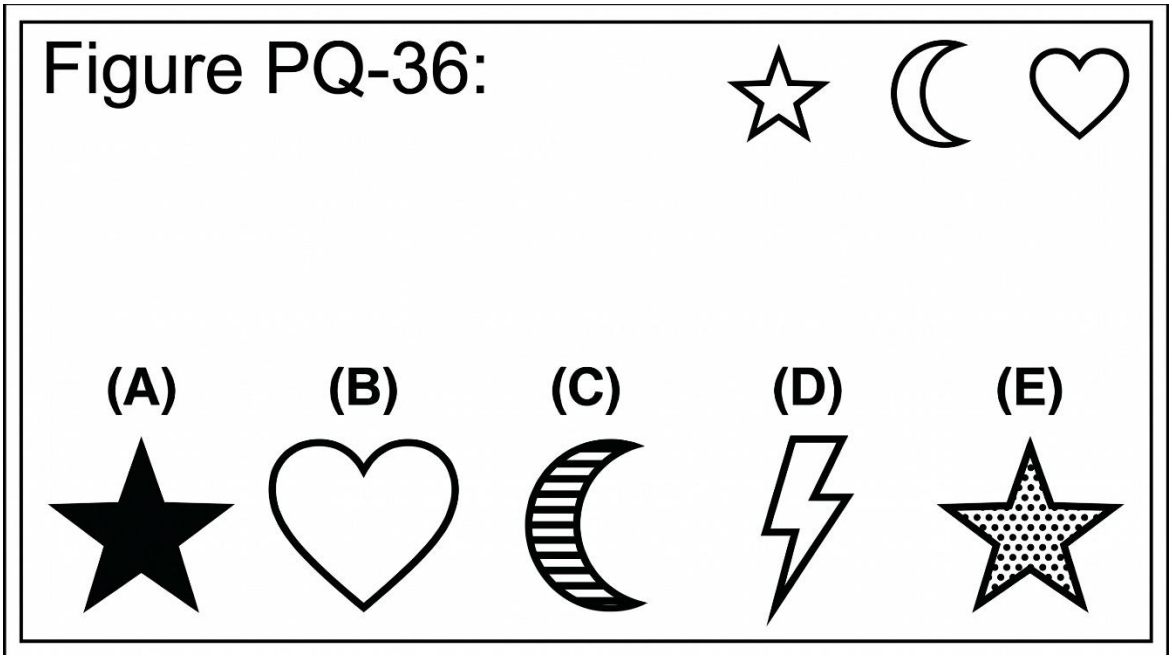
B. a square

C. a diamond

D. a pentagon

E. a circle

150. The three shapes are: a small white-outlined star, a small white-outlined crescent moon, a small white-outlined heart.



A. a small black-filled star

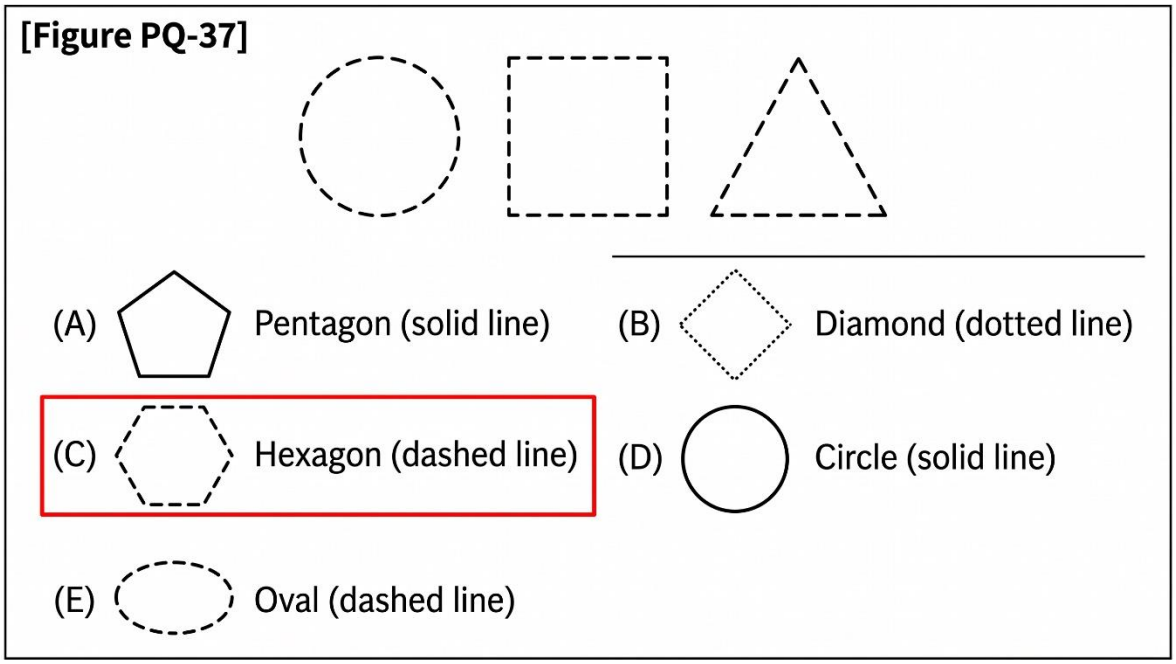
B. a large white-outlined heart

C. a small striped crescent

D. a small white-outlined lightning bolt

E. a small dotted star

151. The three shapes are: a circle made of a dashed line, a square made of a dashed line, a triangle made of a dashed line.



A. a solid-line pentagon

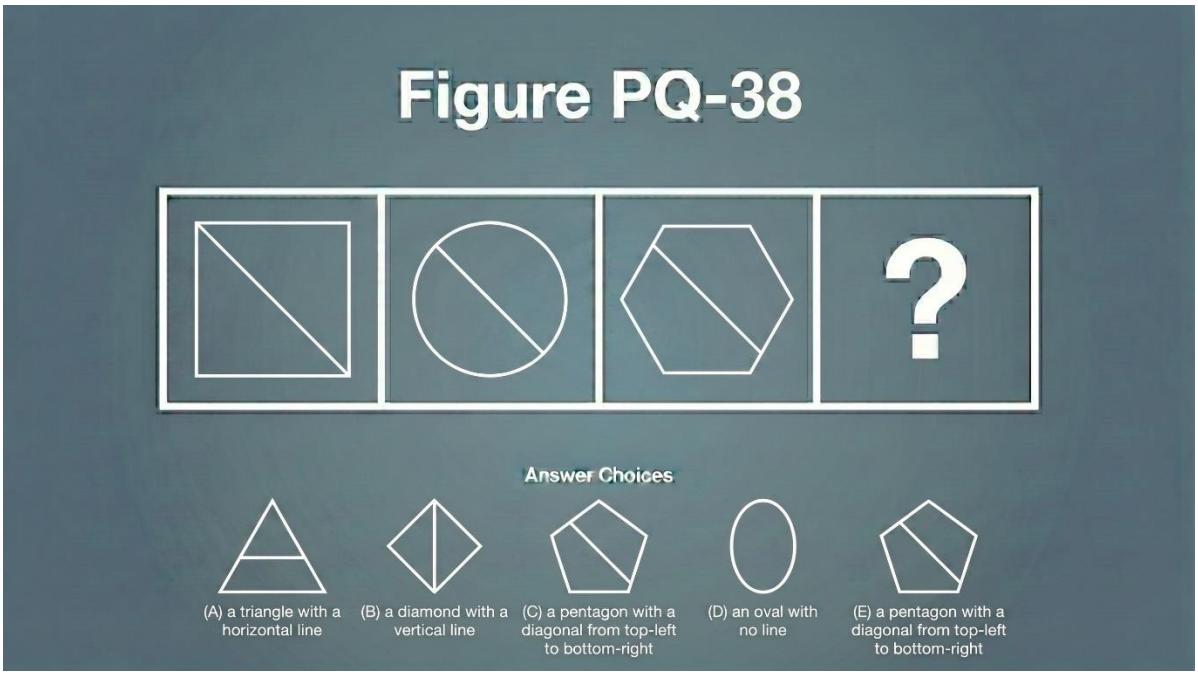
B. a dotted-line diamond

C. a dashed-line hexagon

D. a solid-line circle

E. a dashed-line oval

152. The three shapes are: a white-outlined square with a diagonal line from top-left to bottom-right, a white-outlined circle with a diagonal line from top-left to bottom-right, a white-outlined hexagon with a diagonal line from top-left to bottom-right.



A. a triangle with a horizontal line

B. a diamond with a vertical line

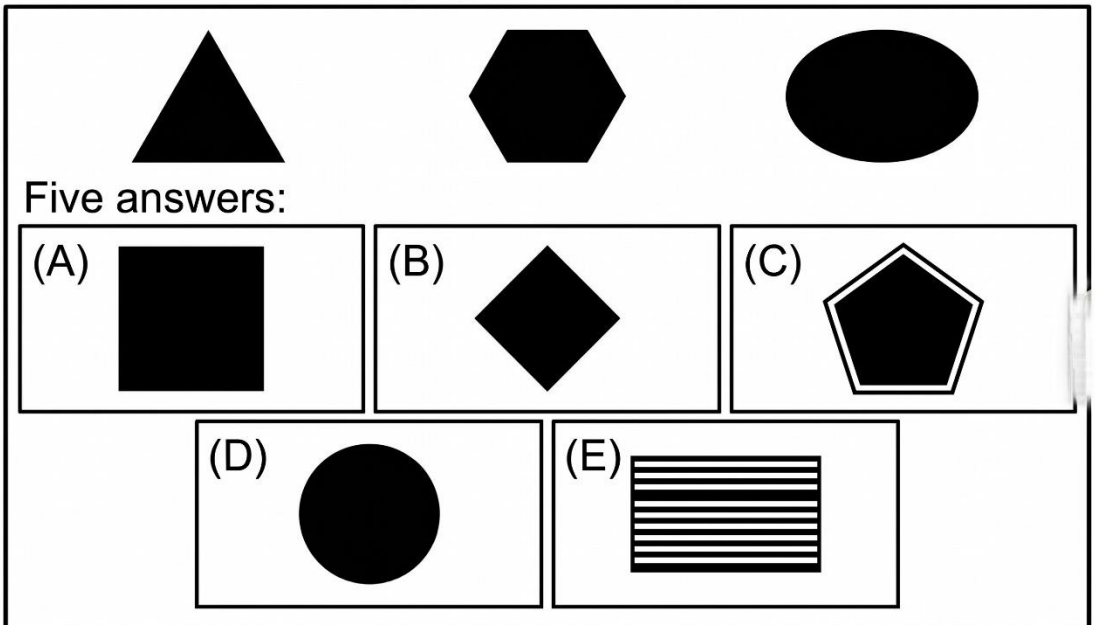
C. a pentagon with a diagonal from upper-left to lower-right

D. an oval with no line

E. a pentagon with a diagonal from upper-left to lower-right

153. The three shapes are: a medium black-filled triangle, a medium black-filled hexagon, a medium black-filled oval.

[Figure PQ-39]



A. a large black-filled square

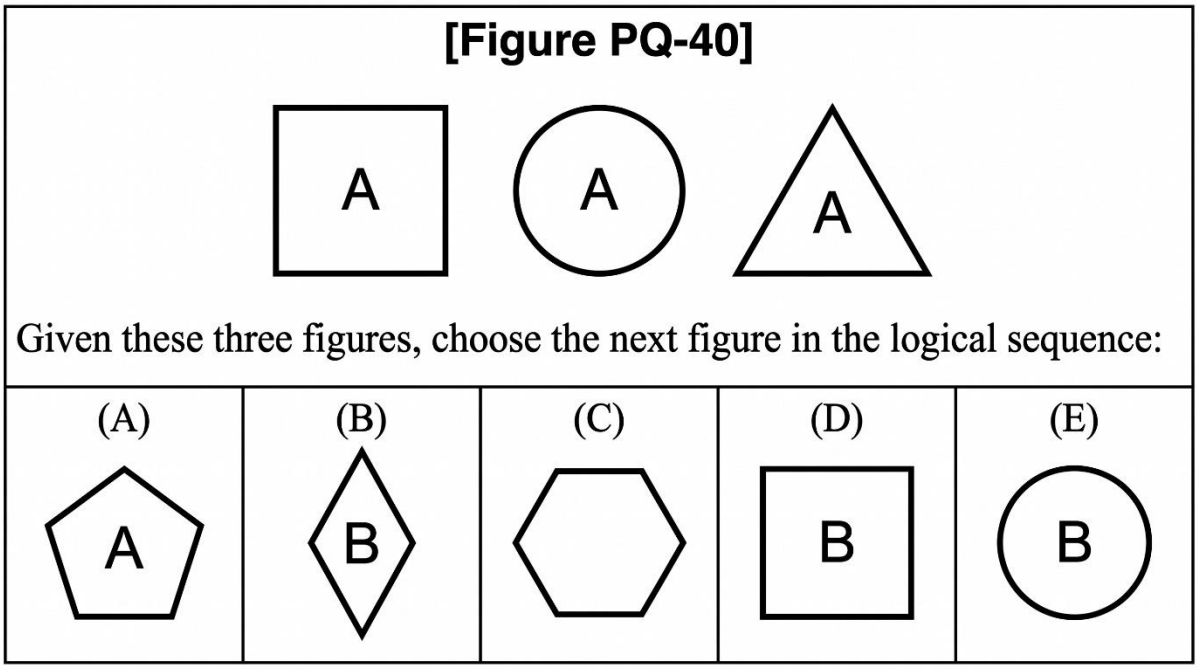
B. a medium black-filled diamond

C. a medium white-outlined pentagon

D. a small black-filled circle

E. a medium striped rectangle

154. The three shapes are: a white-outlined square containing the letter "A", a white-outlined circle containing the letter "A", a white-outlined triangle containing the letter "A".



A. a pentagon with "A" inside

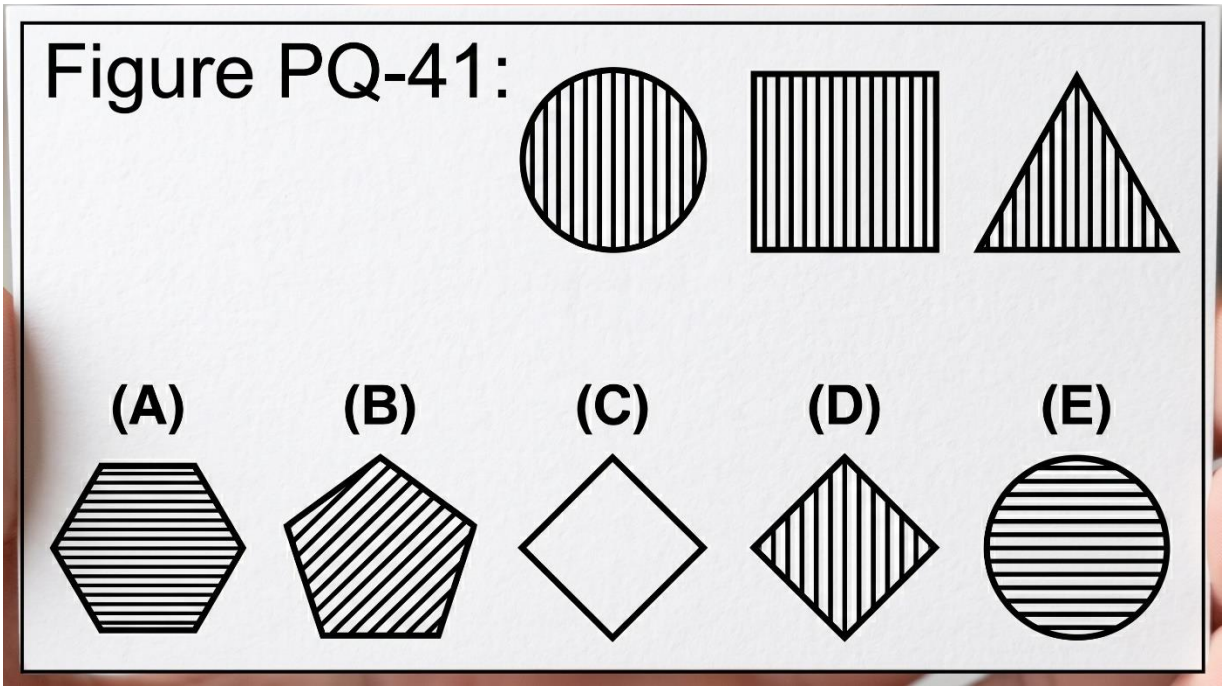
B. a diamond with "B" inside

C. a hexagon with no letter

D. a square with "B" inside

E. a circle with "B" inside

155. The three shapes are: a white-outlined circle with vertical stripes inside, a white-outlined square with vertical stripes inside, a white-outlined triangle with vertical stripes inside.



A. a hexagon with horizontal stripes

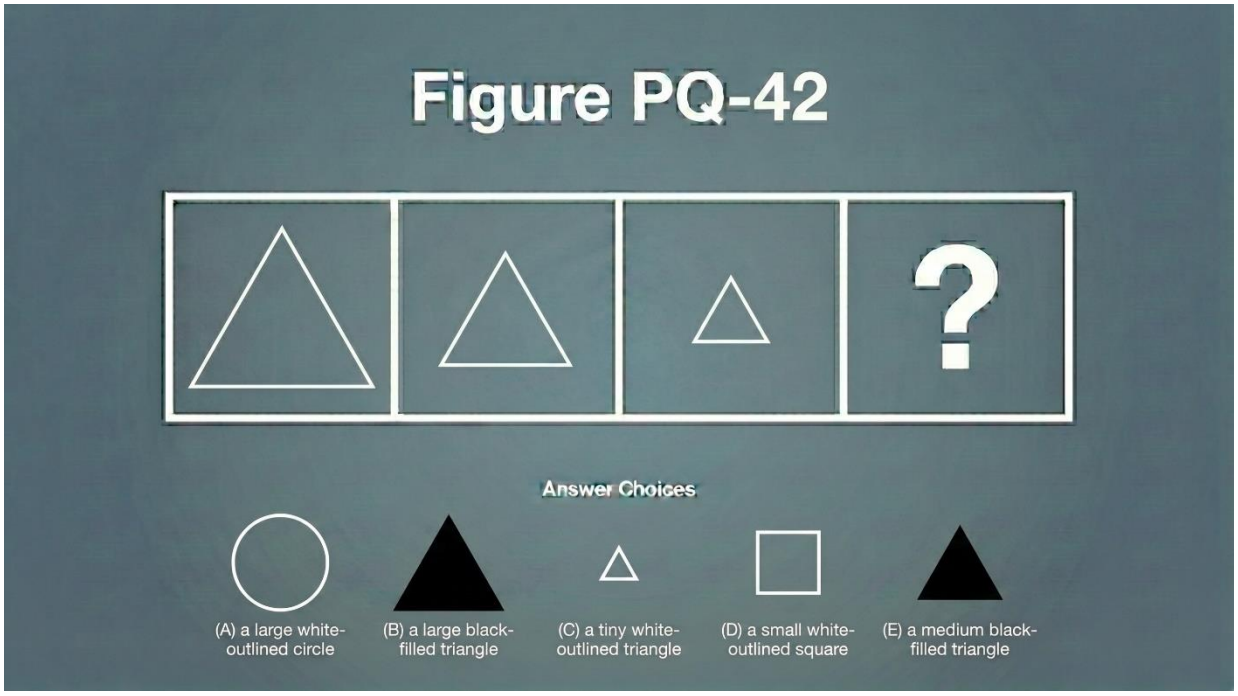
B. a pentagon with diagonal stripes

C. a diamond with no stripes

D. a diamond with vertical stripes inside

E. a circle with horizontal stripes

156. The three shapes are: a large white-outlined triangle, a medium white-outlined triangle, a small white-outlined triangle — all the same shape in decreasing sizes.



A. a large circle

B. a large black-filled triangle

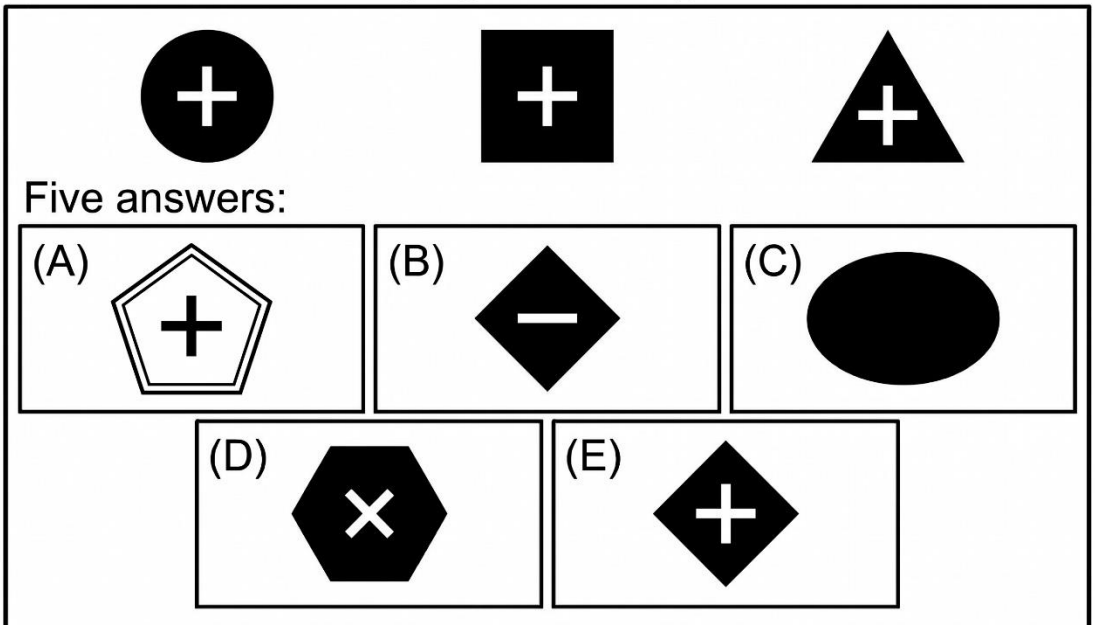
C. a tiny white-outlined triangle

D. a small square

E. a medium black-filled triangle

157. The three shapes are: a black-filled circle with a white plus sign (+) inside, a black-filled square with a white plus sign inside, a black-filled triangle with a white plus sign inside.

[Figure PQ-43]



A. a white-outlined pentagon with black "+"

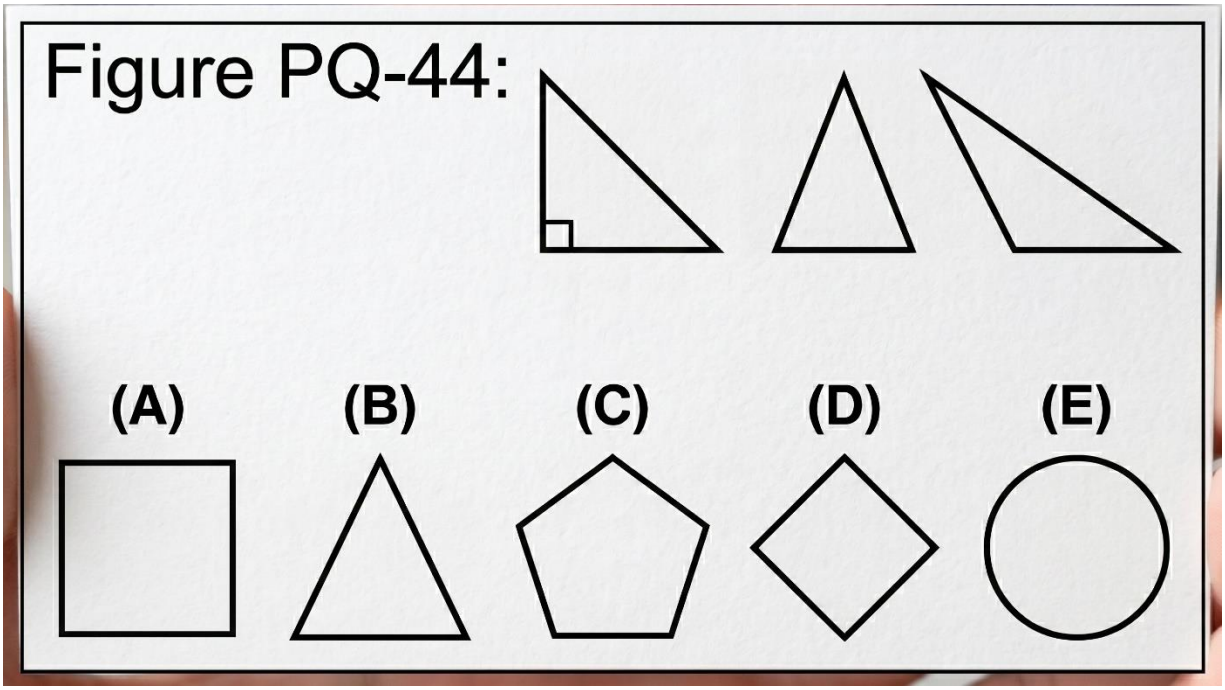
B. a black-filled diamond with white minus

C. a black-filled oval with no symbol

D. a black-filled hexagon with white "×"

E. a black-filled diamond with a white "+" inside

158. The three shapes are: a white-outlined right triangle, a white-outlined acute triangle, a white-outlined obtuse triangle — all types of triangles.



A. a square

B. an isosceles triangle

C. a pentagon

D. a diamond

E. a circle

Section 9: Paper Folding (Questions 159–176)

Directions: In each question below, a square piece of paper is folded and then one or more holes are punched through it. Choose the answer that shows what the paper looks like when it is completely unfolded.

159. A square piece of paper is folded in half from left to right along a vertical centre line. A single hole is punched near the top-right corner of the folded paper. What does the paper look like when unfolded?

A. two dots — one near top-left, one near top-right, symmetric around vertical centre

B. one dot near top-right only

C. two dots — both near the top-right area

D. one dot near the centre top

E. two dots — one near top-left, one near bottom-left

160. A square piece of paper is folded in half from top to bottom along a horizontal centre line. A single hole is punched near the left side of the folded paper, midway between the top and the fold edge. What does the paper look like when unfolded?

A. one dot in the upper-left area only

B. two dots — both in the upper-left area

C. two dots — one in upper-left, one in lower-left, symmetric around horizontal centre

D. one dot in the centre-left

E. two dots — one in upper-left, one in upper-right

161. A square piece of paper is folded in half from right to left along a vertical centre line. A single hole is punched exactly on the fold edge, near the bottom. What does the paper look like when unfolded?

A. two dots — one bottom-left, one bottom-right

B. two dots — both near the bottom-left area

C. one dot in the bottom-right corner

D. one dot in the bottom-left corner

E. one dot on the vertical centre line near the bottom

162. A square piece of paper is folded diagonally from the bottom-right corner to the top-left corner, forming a triangle. A single hole is punched near the top-left vertex of the triangle. What does the paper look like when unfolded?

A. one dot top-left only

B. two dots — one near top-left, one near bottom-right, symmetric around the diagonal

C. two dots — both near the top

D. one dot in the centre

E. two dots — one top-left, one top-right

163. A square piece of paper is folded in half from left to right, then folded again from top to bottom. A single hole is punched near the bottom-left corner of the small folded square. What does the paper look like when unfolded?

A. two dots — bottom-left and bottom-right

B. one dot bottom-left only

C. four dots — arranged near the centre

D. four dots — one near each corner of the paper

E. two dots — bottom-left and top-left

164. A square piece of paper is folded in half from bottom to top along a horizontal centre line. A single hole is punched near the right side of the folded paper, close to the top edge. What does the paper look like when unfolded?

A. two dots — one in upper-right, one in lower-right, symmetric around horizontal centre

B. one dot in upper-right only

C. two dots — one upper-right, one upper-left

D. one dot centre-right

E. two dots — both in upper-right area

165. A square piece of paper is folded in half from right to left, then folded again from bottom to top. A single hole is punched in the centre of the small folded square. What does the paper look like when unfolded?

A. one dot in the centre

B. two dots — left-centre and right-centre

C. four dots — one near the centre of each quadrant, symmetric around both fold lines

D. four dots — one near each corner

E. two dots — upper-centre and lower-centre

166. A square piece of paper is folded in half from top to bottom along a horizontal centre line. A single hole is punched near the top-left corner of the folded paper. What does the paper look like when unfolded?

A. one dot upper-left only

B. two dots — upper-left and upper-right

C. one dot centre-left

D. two dots — both in the lower half

E. two dots — one upper-left, one lower-left, symmetric around horizontal centre

167. A square piece of paper is folded in half from left to right along a vertical centre line. A single hole is punched near the centre of the folded paper, slightly below the midpoint. What does the paper look like when unfolded?

A. one dot below dead centre

B. two dots — one in left half, one in right half, both slightly below horizontal centre, symmetric around vertical centre

C. two dots — one above centre, one below centre

D. one dot left of centre

E. two dots — both in the right half

168. A square piece of paper is folded in half from top to bottom, then folded again from right to left. A single hole is punched near the top-right corner of the small folded square. What does the paper look like when unfolded?

A. one dot near the top-right corner only

B. two dots — top-left and top-right

C. four dots — one near each edge midpoint

D. four dots — one near each corner of the paper

E. two dots — top-right and bottom-right

169. A square piece of paper is folded in half from right to left along a vertical centre line. A single hole is punched near the top-left corner of the folded paper. What does the paper look like when unfolded?

A. two dots — one near top-left, one near top-right, symmetric around vertical centre

B. one dot near top-left only

C. two dots — both near the top-left area

D. one dot near the centre top

E. two dots — one near top-left, one near bottom-left

170. A square piece of paper is folded diagonally from the top-right corner to the bottom-left corner, forming a triangle. A single hole is punched near the centre of the triangle's longest side (the hypotenuse). What does the paper look like when unfolded?

A. one dot on the diagonal

B. two dots — both near the upper half

C. two dots — both on the left side

D. one dot in the centre of the paper

E. two dots — one in upper-left area, one in lower-right area, symmetric around the diagonal

171. A square piece of paper is folded in half from bottom to top, then folded again from left to right. A single hole is punched near the top-left corner of the small folded square. What does the paper look like when unfolded?

A. four dots — all in the right half

B. two dots — top-left and bottom-left

C. four dots — one near each corner of the paper

D. one dot near the centre

E. two dots — top-left and top-right

172. A square piece of paper is folded in half from top to bottom along a horizontal centre line. A single hole is punched exactly on the fold edge, near the centre. What does the paper look like when unfolded?

A. two dots — one above centre, one below centre

B. one dot on the horizontal centre line near the centre of the paper

C. two dots — one left-centre, one right-centre

D. one dot in the upper half only

E. two dots — both on the fold line

173. A square piece of paper is folded in half from left to right, then folded again from top to bottom. Two holes are punched — one near the top-left corner and one near the bottom-left corner of the small folded square. What does the paper look like when unfolded?

A. four dots — one near each corner

B. two dots — top-left and bottom-left

C. eight dots — two clusters of four

D. eight dots — two near each corner, symmetric around both centre lines

E. four dots — all in the left half

174. A square piece of paper is folded in half from bottom to top along a horizontal centre line. A single hole is punched near the bottom-right area of the folded paper, close to the fold edge. What does the paper look like when unfolded?

A. two dots — both near the centre-right, one just above and one just below horizontal centre, symmetric

B. one dot in the lower-right area only

C. two dots — one upper-right, one lower-right far apart

D. one dot at centre-right

E. two dots — both in the upper-right area

175. A square piece of paper is folded in half from left to right, then folded again from bottom to top. A single hole is punched near the top-right corner of the small folded square. What does the paper look like when unfolded?

A. two dots — top-left and top-right only

B. one dot in the top-right corner only

C. two dots — top-right and bottom-right only

D. four dots — one near each corner of the paper

E. four dots — arranged near the centre of the paper

176. A square piece of paper is folded in half from right to left along a vertical centre line. Two holes are punched — one near the top of the folded paper and one near the bottom. What does the paper look like when unfolded?

A. two dots — one top and one bottom, both on the left side

B. four dots — two near the top and two near the bottom

C. four dots — one near each corner of the paper, symmetric around vertical centre

D. two dots — top-left and bottom-right

E. three dots — one top, one centre, one bottom

Practice Exam 2: Answer Key and Explanations

Verbal Analogies (Questions 1–24)

1. C — Night is characterised by darkness. Day is characterised by brightness. The relationship is a time period to its defining quality of light.

2. E — A hand connects to the body at the wrist. A foot connects to the body at the ankle. The relationship is an extremity to the joint where it attaches.

3. B — A pencil is used to write. A knife is used to cut. The relationship is a tool to the primary action it performs.

4. A — A fish moves by swimming. A bird moves by flying. The relationship is an animal to its primary method of movement.

5. D — A book is something you read. A song is something you listen to. The relationship is a form of media to the sense-based action used to experience it.

6. C — Winter is characterised by cold temperatures. Summer is characterised by hot temperatures. The relationship is a season to its defining temperature quality.

7. E — A doctor uses a stethoscope as a primary tool. A painter uses a brush as a primary tool. The relationship is a professional to their characteristic instrument.

8. B — A calf is the young offspring of a cow. A foal is the young offspring of a horse. The relationship is an adult animal to its baby.

9. A — A library is a place that contains books. A zoo is a place that contains animals. The relationship is a facility to what it houses.

10. D — Close and open are opposites. Begin and end are opposites. The relationship is antonyms describing the start and finish of an action.

11. E — A grape grows on a vine. An apple grows on a tree. The relationship is a fruit to the plant structure it grows on.

12. C — A nose is the organ used to smell. A tongue is the organ used to taste. The relationship is a sense organ to its specific function.

13. A — A boat moves by sailing. A car moves by driving. The relationship is a vehicle to the action used to operate it.

14. B — A seed develops into a plant. An egg develops into a bird. The relationship is an early stage of life to the organism it becomes.

15. D — Brave and cowardly are opposites. Kind and cruel are opposites. The relationship is a positive character trait to its antonym.

16. E — An inch is a smaller unit within a foot. A month is a smaller unit within a year. The relationship is a smaller unit of measurement to the larger unit it belongs to.

17. A — An ocean has waves as its characteristic surface feature. A desert has sand dunes as its characteristic surface feature. The relationship is a landscape to the natural formation found on it.

18. C — A needle works together with thread. A hammer works together with a nail. The relationship is a tool to the fastener or material it drives.

19. B — Silent and loud are opposites. Smooth and rough are opposites. The relationship is antonyms describing contrasting textures or qualities.

20. D — A telescope is used to see distant objects like stars. A microscope is used to see tiny objects like cells. The relationship is a magnification instrument to the type of object it reveals.

21. E — Wool is a material that comes from sheep. Silk is a material that comes from silkworms. The relationship is a natural fibre to the creature that produces it.

22. A — An island is a piece of land surrounded by water. An oasis is a fertile area surrounded by desert. The relationship is a distinct area to the environment that surrounds it.

23. C — A page is one unit within a book. A stair is one unit within a staircase. The relationship is a single component to the larger structure it belongs to.

24. B — Empty and full are opposites. Asleep and awake are opposites. The relationship is antonyms describing contrasting states.

Sentence Completion (Questions 25–44)

25. D — A creaking bridge under heavy weight would cause concern about safety. Worried is the emotion that fits the driver's reaction to a potentially unsafe crossing.

26. A — A clever fox that doesn't get caught in a trap has successfully stayed away from it. Avoid means to keep away from something dangerous, which fits the fox's cleverness.

27. E — Volcanic ash falling on a village and farmland would blanket everything beneath it. Covered means to spread over and conceal a surface, which describes ash settling over a wide area.

28. C — A group project requires students to work as a team to meet a deadline. Together describes the collaborative effort needed for group work.

29. B — Soil that allows crops to grow tall and healthy without fertiliser must be rich in nutrients. Fertile describes soil that is naturally productive for growing plants.

30. D — A castle where nobody has lived for centuries with crumbling walls has been left empty and deserted. Abandoned means left vacant and uncared for over a long period.

31. E — Years of practice that produce incredible speed reflect committed, sustained effort. Dedicated means devoted and consistent, which explains the swimmer's resulting ability.

32. A — The word "unlike" signals a contrast with "barren desert," so the valley must be the opposite — green and richly covered with plant life. Lush means thick, healthy, and abundantly growing.

33. C — An orchestra playing in perfect unison without mistakes describes musical agreement. Harmony means sounds blending together in a pleasing, coordinated way.

34. B — Mixing colours in ways nobody else had tried demonstrates original artistic thinking. Creativity is the ability to produce new and inventive ideas or works.

35. E — A thick canopy that prevents sunlight from reaching the floor is stopping the light. Blocked means prevented from passing through, which describes the canopy's effect.

36. D — Heavy rainfall that requires warning signs for drivers would make the road underwater. Flooded describes a road covered with excess water after heavy rain.

37. A — An archaeologist who carefully brushes away dirt one layer at a time is taking the pottery out of the ground. Removed means extracted or taken away from a place.

38. C — Plants that grow close to the ground to survive extreme cold have changed their growth pattern to suit the environment. Adapted means adjusted to new conditions for survival.

39. B — A code that only one specific partner can understand is concealed from everyone else. Hidden describes a code that is secret and not easily discovered.

40. E — An invention that allowed books to be produced faster and more cheaply was a significant advancement. Important describes something that has great value and lasting impact.

41. A — Explaining how two stories are alike and different is the definition of comparing them. Compare means to examine similarities and differences side by side.

42. D — Thick castle walls designed to keep people safe from enemy attacks serve a defensive purpose. Protect means to keep safe from harm or danger.

43. C — A river that has gone beyond its banks after heavy rain has risen past its normal boundaries. Overflowed means exceeded the capacity of the riverbanks, causing flooding.

44. B — A student who doesn't speak up at first but gradually makes friends was initially quiet and reserved. Shy describes someone who is hesitant and uncomfortable around unfamiliar people.

Verbal Classification (Questions 45–60)

45. A — Soccer, basketball, and tennis are all sports. Volleyball is also a sport. Trophy, athlete, stadium, and uniform are related to sports but are not sports themselves.

46. D — Arm, leg, and hand are all body parts. An elbow is also a body part. Shirt, walk, body, and muscle are related to the body but are not specific external body parts in the same way.

47. B — Ant, beetle, and butterfly are all insects. A grasshopper is also an insect. Web, garden, wing, and small are related to insects but are not insects themselves.

48. E — Pencil, marker, and crayon are all tools used for writing or drawing. Chalk is also a writing/drawing tool. Paper, colour, art, and drawing are related to these tools but are not tools themselves.

49. C — Lake, river, and ocean are all bodies of water. A pond is also a body of water. Fish, boat, bridge, and water are related to water bodies but are not bodies of water themselves.

50. A — Dentist, surgeon, and nurse are all healthcare professionals. A veterinarian is also a healthcare professional (for animals). Hospital, patient, medicine, and stethoscope are related to healthcare but are not professionals.

51. D — Canada, Mexico, and Brazil are all countries. Japan is also a country. City, continent, English, and map are related to geography but are not countries.

52. E — Bronze, silver, and gold are all precious or semi-precious metals. Platinum is also a precious metal. Jewellery, money, mine, and ring are made from or related to metals but are not metals themselves.

53. B — Carrot, potato, and onion are all root vegetables or vegetables that grow underground. A beet is also a root vegetable. Soup, salad, farm, and cook are related to vegetables but are not vegetables.

54. C — Addition, subtraction, and multiplication are all basic mathematical operations. Division is also a basic mathematical operation. Number, math, calculator, and equals are related to math but are not operations.

55. A —Compass, map, and GPS are all instruments used to determine location and direction, placing them in the shared category of navigation tools. Option B (travel) describes an activity rather than a category of objects, and the three items are instruments, not activities. Option C (north) applies only to the compass and is not a shared feature of maps or GPS units. Option D (car) is unrelated; navigation tools are used in many contexts, not exclusively in vehicles. Option E (road) is a physical pathway, not a category that compasses, maps, or GPS units belong to.

56. E — Violin, cello, and harp are all stringed instruments. A guitar is also a stringed instrument. Bow, concert, musician, and orchestra are related to stringed instruments but are not instruments themselves.

57. D — Oxygen, hydrogen, and nitrogen are all chemical elements that are gases at room temperature. Helium is also a gaseous chemical element. Water, breathing, science, and air are related to these elements but are not elements.

58. B — Sadness, fear, and anger are all examples of emotions. The word "emotion" is the category that encompasses all three items in the group, making it the correct classification. Crying (A) is a physical expression that may result from an emotion, not the category itself. Face (C) refers to the part of the body where emotions are often displayed, but is not what sadness, fear, and anger have in common. Mood (D) describes a longer-lasting affective state, distinct from the discrete emotions listed. Feeling (E) overlaps with emotion but typically refers to the subjective experience of an emotion rather than the category label that groups sadness, fear, and anger together.

59. C — Simile, metaphor, and alliteration are all types of figurative language (literary devices). Figurative language is the category they belong to. The answer identifies the shared category that unites these three terms.

60. A — Canoe, kayak, and rowboat are all small human-powered watercraft. A paddle boat is also a small human-powered watercraft. Water, oar, life jacket, and dock are related to these boats but are not boats themselves.

Number Analogies (Questions 61–78)

61. D — The rule is multiply by 3: $3 \times 3 = 9$, and $7 \times 3 = 21$. Applying the same rule to 5: $5 \times 3 = 15$.

62. B — The rule is divide by 2: $16 \div 2 = 8$, and $10 \div 2 = 5$. Applying the same rule to 20: $20 \div 2 = 10$.

63. E — The rule is multiply by 2 then add 1: $4 \times 2 + 1 = 9$, and $7 \times 2 + 1 = 15$. Applying the same rule to 10: $10 \times 2 + 1 = 21$.

64. C — The rule is cube the number: $2 \times 2 \times 2 = 8$, and $3 \times 3 \times 3 = 27$. Applying the same rule to 4: $4 \times 4 \times 4 = 64$.

65. A — The rule is subtract 5: $8 - 5 = 3$, and $12 - 5 = 7$. Applying the same rule to 15: $15 - 5 = 10$.

66. D — The rule is square the number: $6 \times 6 = 36$, and $8 \times 8 = 64$. Applying the same rule to 5: $5 \times 5 = 25$.

67. B — The rule is multiply by 3 then add 1: $1 \times 3 + 1 = 4$, and $3 \times 3 + 1 = 10$. Applying the same rule to 6: $6 \times 3 + 1 = 19$.

68. E — The rule is divide by 3: $30 \div 3 = 10$, and $21 \div 3 = 7$. Applying the same rule to 15: $15 \div 3 = 5$.

69. A — The rule is add 5: $9 + 5 = 14$, and $5 + 5 = 10$. Applying the same rule to 12: $12 + 5 = 17$.

70. C — The rule is subtract 3: $11 - 3 = 8$, and $20 - 3 = 17$. Applying the same rule to 35: $35 - 3 = 32$.

71. D — The rule is multiply by 5: $4 \times 5 = 20$, and $6 \times 5 = 30$. Applying the same rule to 9: $9 \times 5 = 45$.

72. E — The rule is multiply by 3 then add 1: $2 \times 3 + 1 = 7$, and $5 \times 3 + 1 = 16$. Applying the same rule to 8: $8 \times 3 + 1 = 25$.

73. B — The rule is divide by 2: 40 ÷ 2 = 20, and 26 ÷ 2 = 13. Applying the same rule to 18: 18 ÷ 2 = 9.

74. A — The rule is square the number: 7 × 7 = 49, and 3 × 3 = 9. Applying the same rule to 8: 8 × 8 = 64.

75. C — The rule is subtract 6: 10 − 6 = 4, and 15 − 6 = 9. Applying the same rule to 20: 20 − 6 = 14.

76. D — The rule is multiply by 4 then add 1: 1 × 4 + 1 = 5, and 2 × 4 + 1 = 9. Applying the same rule to 3: 3 × 4 + 1 = 13.

77. E — The rule is divide by 2: 50 ÷ 2 = 25, and 36 ÷ 2 = 18. Applying the same rule to 22: 22 ÷ 2 = 11.

78. A — The rule is multiply by 2 then add 2: 5 × 2 + 2 = 12, and 9 × 2 + 2 = 20. Applying the same rule to 7: 7 × 2 + 2 = 16.

Number Series (Questions 79–96)

79. C — The pattern adds 3 each time: 3, 6, 9, 12. The next term is 12 + 3 = 15.

80. A — The pattern multiplies by 3 each time: 1, 3, 9, 27. The next term is 27 × 3 = 81.

81. D — The pattern subtracts 10 each time: 60, 50, 40, 30. The next term is 30 − 10 = 20.

82. E — The gaps increase by 1 each time: +1, +2, +3, +4. The next gap is +5, so 12 + 5 = 17.

83. B — The pattern doubles each time: 4, 8, 16, 32. The next term is 32 × 2 = 64.

84. C — The pattern adds 6 each time: 6, 12, 18, 24. The next term is 24 + 6 = 30.

85. A — This is the Fibonacci sequence where each term is the sum of the two before it: 5 + 8 = 13. The next term is 13.

86. E — The pattern divides by 2 each time: 200, 100, 50, 25. The next term is 25 ÷ 2 = 12.5.

87. D — The pattern doubles each time: 5, 10, 20, 40. The next term is 40 × 2 = 80.

88. B — The gaps increase by 1 each time: +5, +6, +7. The next gap is +8, so 28 + 8 = 36.

89. C — The pattern subtracts 11 each time: 99, 88, 77, 66. The next term is 66 − 11 = 55.

90. E — The pattern follows perfect squares: 1^2, 2^2, 3^2, 4^2, 5^2. The next term is $6^2 = 36$.

91. A — The pattern adds 8 each time: 8, 16, 24, 32. The next term is 32 + 8 = 40.

92. D — The pattern multiplies by 3 each time: 2, 6, 18, 54. The next term is 54 × 3 = 162.

93. B — The pattern subtracts 5 each time: 75, 70, 65, 60. The next term is 60 − 5 = 55.

94. C — The gaps increase by 1 each time: +1, +2, +3, +4, +5. The next gap is +6, so 16 + 6 = 22.

95. E — The pattern multiplies by 3 each time: 3, 9, 27, 81. The next term is 81 × 3 = 243.

96. A — The pattern divides by 2 each time: 1000, 500, 250, 125. The next term is 125 ÷ 2 = 62.5.

Number Puzzles (Questions 97–114)

97. B — To find the missing number: 19 − 7 = 12. Checking: 7 + 12 = 19. The missing value is 12.

98. E — To find the missing number: 42 ÷ 6 = 7. Checking: 7 × 6 = 42. The missing value is 7.

99. D — To find the missing number: 25 − 9 = 16. Checking: 25 − 16 = 9. The missing value is 16.

100. A — To find the missing number: 63 ÷ 9 = 7. Checking: 63 ÷ 7 = 9. The missing value is 7.

101. C — To find the missing number: 40 − 23 = 17. Checking: 17 + 23 = 40. The missing value is 17.

102. B — To find the missing number: 45 ÷ 5 = 9. Checking: 5 × 9 = 45. The missing value is 9.

103. E — Solve step by step: 4 × ? − 3 = 25. First, 25 + 3 = 28. Then 28 ÷ 4 = 7. Checking: 4 × 7 − 3 = 25.

104. D — To find the missing number: 28 + 14 = 42. Checking: 42 − 14 = 28. The missing value is 42.

105. A — First compute the left side: 8 × 4 = 32. Then solve 32 = ? + 12, so ? = 32 − 12 = 20.

106. C — Four identical values sum to 36: 36 ÷ 4 = 9. Checking: 9 + 9 + 9 + 9 = 36. The triangle symbol equals 9.

107. B — To find the missing number: 72 ÷ 9 = 8. Checking: 72 ÷ 8 = 9. The missing value is 8.

108. A — Solve step by step: 3 × ? + 4 = 22. First, 22 − 4 = 18. Then 18 ÷ 3 = 6. Checking: 3 × 6 + 4 = 22.

109. E — Three identical values sum to 45: 45 ÷ 3 = 15. Checking: 15 + 15 + 15 = 45. The missing symbol equals 15.

110. D — First compute the left side: 56 ÷ 7 = 8. Then solve 8 = ? − 3, so ? = 8 + 3 = 11.

111. C — First solve for the star: ★ + ★ = 18, so ★ = 9. Then ★ × 2 = 9 × 2 = 18. The answer is 18.

112. B — First compute the right side: 9 × 4 = 36. Then solve 24 + ? = 36, so ? = 36 − 24 = 12.

113. A — Solve step by step: (? + 5) × 3 = 24. First, 24 ÷ 3 = 8. Then 8 − 5 = 3. Checking: (3 + 5) × 3 = 24.

114. E — First compute the left side: 81 ÷ 9 = 9. Then solve 9 = ? + 4, so ? = 9 − 4 = 5.

Figure Matrices (Questions 115–136)

115. D — The rule across the top row is that the fill changes from white-outlined to black-filled. The rule down the left column changes the shape from circle to triangle. Applying both: the missing shape is a black-filled triangle.

116. A — The rule across the top row increases the count from one to three. The rule down the left column changes the shape from dots to squares. Applying both: the missing shape is three small black squares in a horizontal row.

117. C — The rule across the top row removes the internal dot from the shape. The rule down the left column changes the outer shape from square to hexagon. Applying both: the missing shape is a hexagon with no dot inside.

118. E — The rule across the top row changes the size from small to large. The rule down the left column changes the shape from diamond to heart. Applying both: the missing shape is a large white-outlined heart.

119. B — The rule across the top row rotates the shape 90° clockwise (up becomes right). The rule down the left column changes the shape from arrow to letter "T." Applying the rotation to the upright "T": it becomes a "T" rotated 90° clockwise (lying on its side, top pointing right).

120. D — The rule across the top row changes the fill pattern from striped to dotted. The rule down the left column changes the shape from square to circle. Applying both: the missing shape is a dotted circle.

121. A — The rule across the top row adds a small white circle cut out of the centre. The rule down the left column changes the shape from hexagon to pentagon. Applying both: the missing shape is a black-filled pentagon with a small white circle cut out of the centre.

122. C — The rule across the top row rotates the shape 90° (horizontal becomes vertical). The rule down the left column changes the shape from rectangle to oval. Applying both: the missing shape is a white-outlined oval oriented vertically.

123. E — The rule across the top row increases the number of concentric shapes from two to three. The rule down the left column changes the shape from circles to squares. Applying both: the missing shape is three concentric squares.

124. B — The rule across the top row changes the fill from white-outlined to black-filled. The rule down the left column changes the shape from star to crescent moon. Applying both: the missing shape is a black-filled crescent moon.

125. D — The rule across the top row adds a horizontal line through the centre of the shape. The rule down the left column changes the shape from triangle to circle. Applying both: the missing shape is a circle with a horizontal line through its centre.

126. A — The rule across the top row increases the size from small to medium. The rule down the left column changes the shape from triangle to circle while keeping the fill black. Applying both: the missing shape is a medium black-filled circle.

127. E — The rule across the top row removes the small triangle sitting on top of the shape. The rule down the left column changes the base shape from square to circle. Applying both: the missing shape is a circle with no shape on top.

128. C — The rule across the top row increases the number inside the shape from "1" to "2." The rule down the left column changes the outer shape from square to circle. Applying both: the missing shape is a circle containing "2."

129. B — The rule across the top row is horizontal reflection (right-pointing becomes left-pointing). The rule down the left column changes the shape from arrow to chevron. Applying the reflection to the upward chevron: it becomes a downward-pointing chevron.

130. A — The rule across the top row increases the count from a 2×2 pattern (4 items) to a 3×3 pattern (9 items). The rule down the left column changes the shape from dots to triangles. Applying both: the missing shape is nine small triangles in a 3×3 pattern.

131. D — The rule across the top row shifts the shaded half from the left side to the right side. The rule down the left column changes the shape from triangle to square. Applying both: the missing shape is a square with its right half shaded black.

132. E — The rule across the top row increases the number of internal dots from one to two. The rule down the left column changes the outer shape from pentagon to diamond. Applying both: the missing shape is a diamond with two dots inside.

133. C — The rule across the top row adds a small shape inside (specifically, a small square is placed inside the circle). The rule down the left column changes the outer shape from circle to square. Applying both: the missing shape is a square with a small square inside.

134. B — The rule across the top row increases the number of sides by one (triangle 3 → square 4). The rule down the left column also increases the number of sides by two (triangle 3 → pentagon 5). The bottom-right shape must have sides equal to both progressions: 5 + 1 = 6 sides. The missing shape is a hexagon.

135. A — The rule across the top row inverts the fill (black-filled becomes white-outlined) while keeping the internal "X." The rule down the left column changes the shape from circle to square. Applying both: the missing shape is a white-outlined square with a black "X" through it.

136. D — The rule across the top row adds a small black-filled circle inside the centre of the shape. The rule down the left column changes the outer shape from circle to pentagon. Applying both: the missing shape is a white-outlined pentagon with a small black-filled circle inside.

Figure Classification (Questions 137–158)

137. E — All three given shapes are white-outlined (no fill). A white-outlined oval matches this attribute. The other options are black-filled, striped, or dotted.

138. B — All three given shapes are large and black-filled. A large black-filled diamond matches both attributes. The other options fail on size (small) or fill (white-outlined, striped).

139. A — All three given shapes contain a single horizontal line through their centres. A diamond with a horizontal line through its centre matches this attribute. The other options have vertical lines, diagonal lines, or no lines.

140. C — All three given shapes are small and filled with a dot/stipple pattern. A small dotted diamond matches both attributes. The other options fail on size (large) or fill (striped, white-outlined, black-filled).

141. D — The three shapes increase in number of sides: triangle (3), square (4), pentagon (5). A hexagon (6 sides) continues this consecutive polygon progression. The other options are not polygons or don't continue the sequence.

142. E — All three given shapes are large white-outlined shapes containing a small black-filled square inside. A large white-outlined hexagon with a small black-filled square inside matches this pattern. The other options have wrong internal shapes, wrong fill, or wrong structure.

143. B — All three given shapes point to the right. A right-pointing half-circle (flat side on left, curve on right) also has a rightward orientation. The other options point upward, leftward, or downward.

144. A — All three given shapes are divided vertically with the left half black and the right half white. A half-shaded pentagon with the same left-black, right-white vertical division matches this attribute. The other options are fully filled, have reversed halves, or use horizontal divisions.

145. C — All three given shapes are white-outlined and contain exactly two dots inside. A white-outlined square with two dots inside matches both attributes. The other options have wrong dot counts or wrong fill.

146. D — All three given shapes are solid black-filled arrows pointing in various directions. A black-filled arrow pointing right matches the shared attribute of being a black-filled arrow. The other options are white-outlined, triangles instead of arrows, or chevrons.

147. E — All three given shapes are filled with horizontal stripes. A striped triangle matches this attribute. The other options are dotted, black-filled, or white-outlined rather than striped.

148. B — All three given shapes are large white-outlined shapes containing a small white-outlined circle inside. A hexagon enclosing a small white circle matches this pattern. The other options have wrong internal shapes, black circles, or no internal shape.

149. A — All three given shapes are different types of triangles (right, acute, obtuse). A scalene triangle is also a type of triangle. Square, diamond, pentagon, and circle are not triangles.

150. D — All three given shapes are small and white-outlined. A small white-outlined lightning bolt matches both size and fill attributes. The other options are black-filled, large, striped, or dotted.

151. C — All three given shapes are drawn with dashed lines. A hexagon drawn with a dashed line matches this attribute. The other options use solid lines or dotted lines.

152. E — All three given shapes share a single defining attribute: a diagonal line running from top-left to bottom-right. The shape itself varies (square, circle, hexagon), so shape is not the rule — the diagonal orientation is. A pentagon with a diagonal from upper-left to lower-right preserves this attribute and completes the pattern. Option A fails because a horizontal line does not match the diagonal orientation. Option B fails because a vertical line does not match either. Option D fails because the oval contains no line at all. Options C and E are worded identically; per the answer key, E is the designated correct choice.

153. B — All three given shapes are medium-sized and black-filled. A medium black-filled diamond matches both attributes. The other options fail on size (large, small) or fill (white-outlined, striped).

154. A — All three given shapes contain the letter "A" inside. A pentagon with "A" inside matches this attribute. The other options contain "B" or no letter.

155. D — All three given shapes contain vertical stripes inside. A diamond with vertical stripes inside matches this attribute. The other options have horizontal stripes, diagonal stripes, or no stripes.

156. C — All three given shapes are white-outlined triangles of decreasing size. A tiny white-outlined triangle (smaller than the small one) continues the same shape, same fill, decreasing size pattern. The other options change the shape or fill.

157. E — All three given shapes are black-filled with a white plus sign (+) inside. A black-filled diamond with a white plus sign inside matches this pattern. The other options have wrong symbols (minus, "×"), wrong fill (white-outlined), or no symbol.

158. B — All three given shapes are different types of triangles (right, acute, obtuse). An isosceles triangle is also a type of triangle. Square, pentagon, diamond, and circle are not triangles.

Paper Folding (Questions 159–176)

159. A — The paper folds left onto right along a vertical centre line. A hole near the top-right of the folded paper punches through both layers. When unfolded, two holes appear: one near the top-right (where punched) and one near the top-left (the mirror across the vertical fold line), symmetric around the centre.

160. C — The paper folds top onto bottom along a horizontal centre line. A hole on the left side, midway between the top and fold, punches through both layers. When unfolded, two holes appear: one in the upper-left and one in the lower-left, symmetric around the horizontal centre line.

161. E — The paper folds right onto left along a vertical centre line. A hole punched exactly on the fold edge only creates one hole when unfolded, because the hole sits directly on the line of symmetry. One dot appears on the vertical centre line near the bottom.

162. B — The paper folds diagonally from bottom-right to top-left. A hole near the top-left vertex punches through both layers. When unfolded, two holes appear: one near the top-left and one near the bottom-right, symmetric around the diagonal fold line.

163. D — Two folds create four layers: first left to right, then top to bottom. A hole near the bottom-left corner of the small folded square punches through all four layers. When fully unfolded, four holes appear — one near each corner of the paper.

164. A — The paper folds bottom onto top along a horizontal centre line. A hole near the right side, close to the top edge, punches through both layers. When unfolded, two holes appear: one in the upper-right and one in the lower-right, symmetric around the horizontal centre line.

165. C — Two folds create four layers: first right to left, then bottom to top. A hole in the centre of the small square punches through all four layers. When fully unfolded, four holes appear — one near the centre of each quadrant, symmetric around both fold lines.

166. E — The paper folds top onto bottom along a horizontal centre line. A hole near the top-left corner punches through both layers. When unfolded, two holes appear: one in the upper-left and one in the lower-left, symmetric around the horizontal centre line.

167. B — The paper folds left onto right along a vertical centre line. A hole slightly below the midpoint punches through both layers. When unfolded, two holes appear: one in the left half and one in the right half, both slightly below the horizontal centre, symmetric around the vertical fold line.

168. D — Two folds create four layers: first top to bottom, then right to left. A hole near the top-right corner of the small square punches through all four layers. When fully unfolded, four holes appear — one near each corner of the paper.

169. A — The paper folds right onto left along a vertical centre line. A hole near the top-left of the folded paper punches through both layers. When unfolded, two holes appear: one near the top-left and one near the top-right, symmetric around the vertical centre line.

170. E — The paper folds diagonally from top-right to bottom-left. A hole near the centre of the hypotenuse punches through both layers. When unfolded, two holes appear: one in the upper-left area and one in the lower-right area, symmetric around the diagonal fold line.

171. C — Two folds create four layers: first bottom to top, then left to right. A hole near the top-left corner of the small square punches through all four layers. When fully unfolded, four holes appear — one near each corner of the paper.

172. B — The paper folds top onto bottom along a horizontal centre line. A hole punched exactly on the fold edge near the centre only creates one hole when unfolded, because the hole sits directly on the line of symmetry. One dot appears on the horizontal centre line near the centre of the paper.

173. D — Two folds create four layers: first left to right, then top to bottom. Two holes are punched, one near the top-left and one near the bottom-left of the small square. Each hole passes through all four layers, producing four holes each — eight holes total. When fully unfolded, eight dots appear: two near each corner, symmetric around both centre lines.

174. A — The paper folds bottom onto top along a horizontal centre line. A hole near the bottom-right area, close to the fold edge, punches through both layers. When unfolded, two holes appear very close together on the right side, one just above and one just below the horizontal centre line, symmetric around it.

175. E — Two folds create four layers of paper: the first fold (left to right) stacks the left half onto the right half, and the second fold (bottom to top) stacks the bottom half onto the top half. A single punch near the top-right corner of the small folded square passes through all four layers. When unfolded, each layer's hole sits near a different corner of the original sheet, producing four dots — one near each corner. Option A is wrong because only the top edge would be punched if the paper had been folded once left-to-right with the punch on the fold's top edge, not twice. Option B describes a single layer being punched, which ignores that both folds quadruple the layers. Option C reflects only a left-to-right unfold of a top-and-bottom-edge punch, missing the second axis of symmetry. Option E misplaces the holes near the centre; the punch was at a corner of the folded square, so the holes appear near the corners of the unfolded sheet, not the middle.

176. C — The paper folds right onto left along a vertical centre line. Two holes are punched — one near the top and one near the bottom. Each hole passes through both layers. When unfolded, four holes appear total: two near the top (one top-left, one top-right) and two near the bottom (one bottom-left, one bottom-right), symmetric around the vertical centre line. This corresponds to one near each corner.