PRACTICE EXAM 5: CCAT-7 LEVEL 10 SIMULATION (176 QUESTIONS)

PART ONE — VERBAL BATTERY (60 questions, 30 minutes)

Section A — Verbal Analogies (Questions 1–24)

1. Ink is to pen as paint is to ____

A. canvas

B. brush

C. artist

D. colour

2. Library is to books as gallery is to ____

A. visitor

B. exhibit

C. paintings

D. building

3. Coward is to brave as miser is to ____

A. rich

B. money

C. cheap

D. generous

4. Lens is to camera as wheel is to ____

A. car

B. road

C. tire

D. axle

5. Lubricant is to friction as antidote is to ____

A. medicine

B. doctor

C. health

D. poison

6. Cobbler is to shoe as ____ is to clock

A. tinker

B. clockmaker

C. mechanic

D. jeweller

7. Saturn is to planet as basil is to ____

A. herb

B. food

C. green

D. cooking

8. Microscope is to magnify as silencer is to ____

A. fire

B. sound

C. muffle

D. silent

9. Acorn is to oak as foal is to ____

A. saddle

B. stable

C. mother

D. horse

10. Tundra is to reindeer as desert is to ____

A. camel

B. sand

C. heat

D. dry

11. Tutor is to student as conductor is to ____

A. music

B. orchestra

C. baton

D. concert

12. Sapphire is to blue as topaz is to ____

A. precious

B. clear

C. yellow

D. orange

13. Forecast is to weather as prophecy is to ____

A. future

B. religion

C. past

D. prediction

14. Pasteur is to vaccine as Edison is to ____

A. science

B. America

C. genius

D. lightbulb

15. Detour is to road as ____ is to plan

A. obstacle

B. complete

C. revision

D. failure

16. Pessimist is to gloomy as optimist is to ____

A. happy

B. cheerful

C. positive

D. bright

17. Cinder is to fire as droplet is to ____

A. rain

B. window

C. wet

D. small

18. Cellar is to wine as silo is to ____

A. round

B. tall

C. metal

D. grain

19. Treaty is to nations as contract is to ____

A. lawyer

B. parties

C. signature

D. promise

20. Foundry is to metal as bakery is to ____

A. cake

B. flour

C. bread

D. oven

21. Reluctant is to eager as scarce is to ____

A. limited

B. rare

C. few

D. abundant

22. Tepid is to hot as faint is to ____

A. loud

B. soft

C. weak

D. quiet

23. Glacier is to ice as dune is to ____

A. water

B. sand

C. snow

D. wave

24. Mason is to brick as carpenter is to ____

A. nail

B. saw

C. wood

D. hammer

Section B — Sentence Completion (Questions 25–44)

25. The committee deliberated for hours before reaching a ____ decision that satisfied everyone present.

A. consensus

B. divisive

C. quick

D. random

26. The author's ____ writing style transported readers to distant worlds with vivid descriptions.

A. plain

B. dull

C. casual

D. evocative

27. Despite warnings from his teachers, the student ____ kept submitting late assignments.

A. proudly

B. stubbornly

C. quickly

D. accidentally

28. The hiker felt a sense of ____ as she stood atop the mountain she had spent years training to climb.

A. fear

B. boredom

C. triumph

D. confusion

29. The detective's ____ questioning eventually revealed the truth that others had missed.

A. casual

B. relentless

C. brief

D. friendly

30. The scientist published her findings only after ____ verification through multiple experiments.

A. thorough

B. brief

C. partial

D. quick

31. The young artist's ____ paintings drew international attention before her tenth birthday.

A. ordinary

B. small

C. plain

D. precocious

32. The ambassador's ____ remarks defused what could have become a serious diplomatic crisis.

A. harsh

B. blunt

C. measured

D. angry

33. Volunteers worked with ____ dedication to rebuild the homes destroyed by the hurricane.

A. unwavering

B. partial

C. minimal

D. weak

34. The CEO's ____ leadership transformed a struggling company into an industry leader.

A. cautious

B. visionary

C. reluctant

D. uncertain

35. The hikers descended slowly, ____ that any wrong step on the icy path could prove dangerous.

A. ignoring

B. forgetting

C. denying

D. mindful

36. Even after winning numerous awards, the actress remained ____ about her achievements.

A. boastful

B. proud

C. humble

D. arrogant

37. The teacher's ____ explanation made even the most complex algebra concepts seem accessible.

A. confusing

B. lucid

C. brief

D. vague

38. The treasure hunter's ____ search of the abandoned mansion eventually uncovered the hidden vault.

A. exhaustive

B. quick

C. casual

D. brief

39. The mountain village remained ____ from modern technology, preserving traditions centuries old.

A. close

B. familiar

C. comfortable

D. detached

40. The chef's ____ palate could identify even the most subtle ingredients in a complex dish.

A. weak

B. ordinary

C. discerning

D. plain

41. After years of careful study, the historian made a ____ contribution to our understanding of ancient Rome.

A. significant

B. small

C. brief

D. trivial

42. The orchestra's ____ performance moved the entire audience to tears with its emotional depth.

A. mediocre

B. quiet

C. brief

D. transcendent

43. The ____ child gazed in wonder at the colourful butterflies fluttering through the garden.

A. tired

B. bored

C. enchanted

D. confused

44. Despite the ____ obstacles in her path, the young scientist persevered and made groundbreaking discoveries.

A. minor

B. formidable

C. small

D. brief

Section C — Verbal Classification (Questions 45–60)

45. Limerick, sonnet, haiku — which word belongs with these?

A. story

B. essay

C. ode

D. novel

46. Mongolia, Tibet, Bhutan — which word belongs with these?

A. Nepal

B. Egypt

C. Brazil

D. France

47. Lemon, lime, grapefruit — which word belongs with these?

A. apple

B. banana

C. mango

D. orange

48. Anemometer, hygrometer, seismograph — which word belongs with these?

A. compass

B. barometer

C. ruler

D. scale

49. Hawaii, Italy, Indonesia — which place belongs with these?

A. Iceland

B. Egypt

C. Norway

D. France

50. Holst, Tchaikovsky, Beethoven — which name belongs with these?

A. Picasso

B. Shakespeare

C. Mozart

D. Einstein

51. Fjord, peninsula, isthmus — which word belongs with these?

A. mountain

B. cape

C. plain

D. desert

52. American Revolution, French Revolution, Russian Revolution — which event belongs with these?

A. school dance

B. football game

C. concert

D. Industrial Revolution

53. Honeybee, ant, termite — which word belongs with these?

A. wasp

B. spider

C. butterfly

D. beetle

54. Saturn, Jupiter, Uranus — which word belongs with these?

A. Mars

B. Earth

C. Neptune

D. Mercury

55. Athens, Sparta, Rome — which name belongs with these?

A. Tokyo

B. New York

C. London

D. Carthage

56. Drizzle, downpour, mist — which word belongs with these?

A. cloud

B. shower

C. wind

D. sun

57. Andes, Himalayas, Rockies — which word belongs with these?

A. Alps

B. Pacific

C. Amazon

D. Sahara

58. Stamen, sepal, anther — which word belongs with these?

A. root

B. leaf

C. trunk

D. pistil

59. Caterpillar, tadpole, larva — which word belongs with these?

A. mature adult

B. nymph

C. chrysalis

D. fully grown

60. Mediterranean Sea, Caspian Sea, Black Sea — which word belongs with these?

A. Lake Superior

B. Amazon River

C. North Sea

D. Pacific Ocean

PART TWO — QUANTITATIVE BATTERY (54 questions, 30 minutes)

Section D — Number Analogies (Questions 61–78)

61. (4, 12) is related to (6, 18). What number completes (10, ?)?

A. 24

B. 27

C. 28

D. 30

62. (90, 30) is related to (60, 20). What number completes (45, ?)?

A. 15

B. 18

C. 20

D. 12

63. (5, 30) is related to (7, 42). What number completes (9, ?)?

A. 50

B. 54

C. 56

D. 60

64. (8, 5) is related to (11, 8). What number completes (15, ?)?

A. 9

B. 11

C. 12

D. 14

65. (3, 12) is related to (4, 20). What number completes (5, ?)?

A. 24

B. 25

C. 28

D. 30

66. (16, 4) is related to (36, 6). What number completes (49, ?)?

A. 7

B. 8

C. 9

D. 10

67. (5, 22) is related to (7, 30). What number completes (9, ?)?

A. 35

B. 38

C. 40

D. 42

68. (110, 11) is related to (130, 13). What number completes (170, ?)?

A. 13

B. 14

C. 15

D. 17

69. (2, 6) is related to (4, 20). What number completes (5, ?)?

A. 30

B. 28

C. 26

D. 24

70. (3, 27) is related to (4, 64). What number completes (5, ?)?

A. 100

B. 105

C. 125

D. 150

71. (8, 19) is related to (12, 27). What number completes (15, ?)?

A. 31

B. 33

C. 35

D. 37

72. (28, 4) is related to (35, 5). What number completes (49, ?)?

A. 5

B. 6

C. 8

D. 7

73. (3, 21) is related to (5, 35). What number completes (8, ?)?

A. 49

B. 56

C. 63

D. 70

74. (6, 11) is related to (9, 17). What number completes (12, ?)?

A. 20

B. 21

C. 22

D. 23

75. (50, 5) is related to (40, 4). What number completes (70, ?)?

A. 7

B. 8

C. 9

D. 10

76. (4, 17) is related to (6, 25). What number completes (8, ?)?

A. 29

B. 31

C. 33

D. 35

77. (12, 132) is related to (10, 110). What number completes (8, ?)?

A. 88

B. 80

C. 96

D. 100

78. (6, 42) is related to (8, 72). What number completes (10, ?)?

A. 90

B. 100

C. 110

D. 120

Section E — Number Series (Questions 79–96)

79. 1, 3, 6, 11, 18, ?

A. 27

B. 29

C. 31

D. 33

80. 5, 12, 19, 26, 33, ?

A. 40

B. 41

C. 42

D. 43

81. 200, 100, 50, 25, 12.5, ?

A. 5

B. 6

C. 6.25

D. 7.5

82. 1, 2, 4, 8, 16, 32, ?

A. 48

B. 56

C. 60

D. 64

83. 3, 5, 9, 17, 33, ?

A. 65

B. 63

C. 61

D. 67

84. 7, 14, 28, 56, 112, ?

A. 168

B. 224

C. 196

D. 252

85. 1, 2, 4, 7, 11, 16, ?

A. 19

B. 20

C. 21

D. 22

86. 64, 16, 4, 1, ?

A. 0.5

B. 0

C. 0.25

D. 0.1

87. 4, 9, 16, 25, 36, ?

A. 42

B. 49

C. 50

D. 56

88. 2, 6, 12, 20, 30, 42, 56, ?

A. 72

B. 70

C. 68

D. 64

89. 6, 7, 9, 12, 16, 21, 27, ?

A. 32

B. 33

C. 35

D. 34

90. 1, 4, 13, 40, 121, ?

A. 240

B. 320

C. 364

D. 400

91. 100, 81, 64, 49, 36, ?

A. 24

B. 25

C. 26

D. 28

92. 5, 11, 23, 47, 95, ?

A. 175

B. 183

C. 189

D. 191

93. 144, 121, 100, 81, 64, ?

A. 49

B. 48

C. 51

D. 56

94. 5, 15, 45, 135, ?

A. 270

B. 360

C. 405

D. 450

95. 1, 1, 2, 3, 5, 8, 13, ?

A. 19

B. 21

C. 23

D. 25

96. 11, 22, 33, 44, 55, ?

A. 60

B. 62

C. 64

D. 66

Section F — Number Puzzles (Questions 97–114)

97. 5 × 4 + 12 = ?

A. 32

B. 34

C. 36

D. 38

98. If ◇ × 9 = 81, what is ◇ + 16?

A. 21

B. 23

C. 25

D. 27

99. $240 \div 8 = ?$

A. 28

B. 30

C. 32

D. 36

100. If $\triangle = 7$ and $\circ = 9$, what is $\triangle \times \circ - 5$?

A. 58

B. 60

C. 62

D. 64

101. $9^2 - 7^2 = ?$

A. 26

B. 28

C. 30

D. 32

102. If $\star + 18 = 30$, what is $\star \times 5$?

A. 50

B. 60

C. 65

D. 70

103. $4 \times 6 - 5 \times 2 = ?$

A. 10

B. 12

C. 14

D. 16

104. If $\diamond = 8$, what is $\diamond^2 + \diamond$?

A. 72

B. 76

C. 80

D. 84

105. $100 - (5 \times 13) = ?$

A. 32

B. 35

C. 38

D. 40

106. $6 \times 9 \div 3 = ?$

A. 12

B. 14

C. 16

D. 18

107. If △ × 4 = 48, what is △ + △?

A. 24

B. 26

C. 28

D. 30

108. $15 \times 8 - 50 = ?$

A. 60

B. 65

C. 70

D. 75

109. $11^2 - 100 = ?$

A. 19

B. 21

C. 23

D. 25

110. If ☆² = 144, what is ☆ × 3?

A. 30

B. 32

C. 34

D. 36

111. $7 \times 6 + 3 \times 8 = ?$

A. 66

B. 68

C. 70

D. 72

112. If $\diamond + \circ = 25$ and $\circ = 13$, what is $\diamond^2$?

A. 121

B. 144

C. 169

D. 196

113. $200 \div (5 \times 5) = ?$

A. 5

B. 6

C. 7

D. 8

114. $13^2 - 12^2 = ?$

A. 21

B. 23

C. 25

D. 27

PART THREE — NONVERBAL BATTERY (62 questions, 30 minutes)

Section G — Figure Matrices (Questions 115–136)

115. Which figure completes the 3×3 grid?

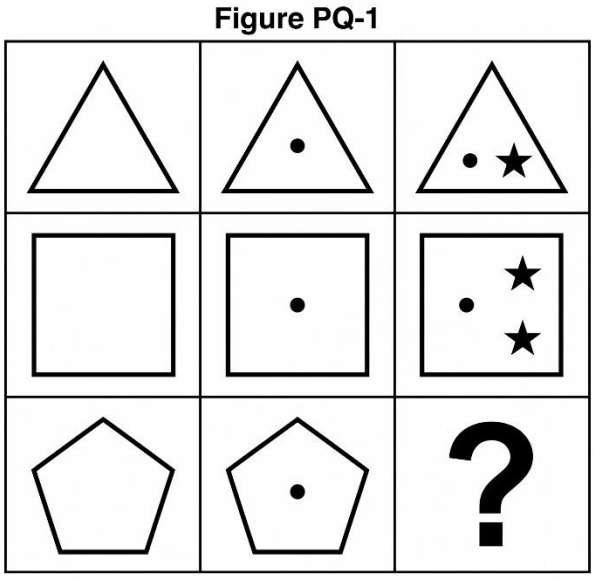


Figure PQ-1

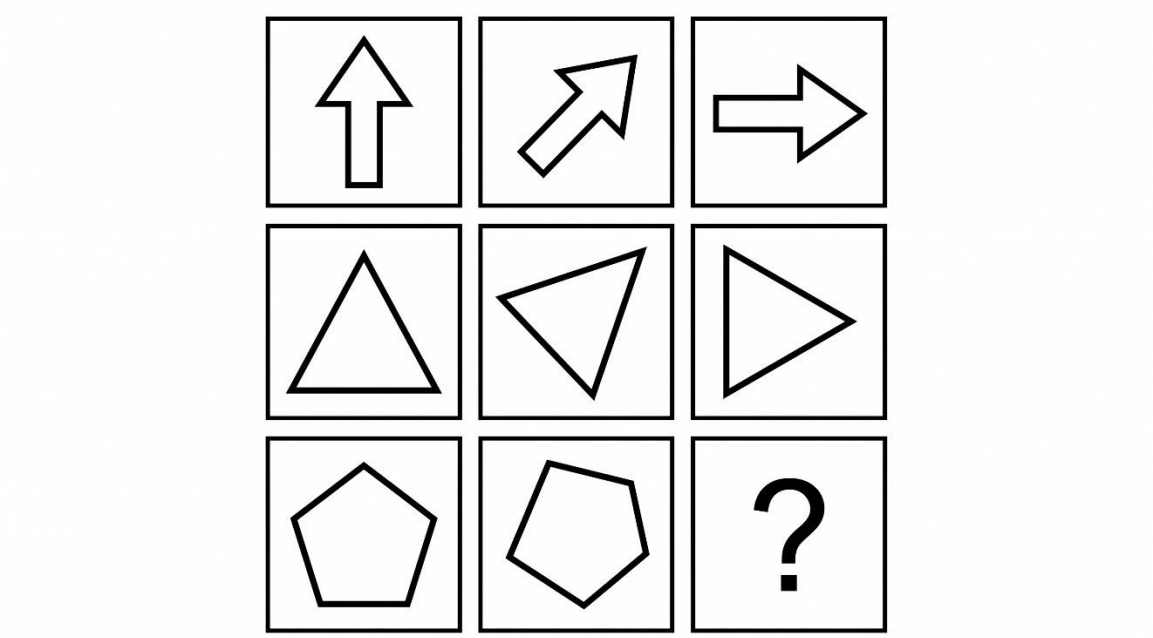
A. pentagon alone

B. pentagon with star only

C. pentagon with two dots

D. pentagon with one small dot and one small star inside

116. Which figure completes the 3×3 grid?



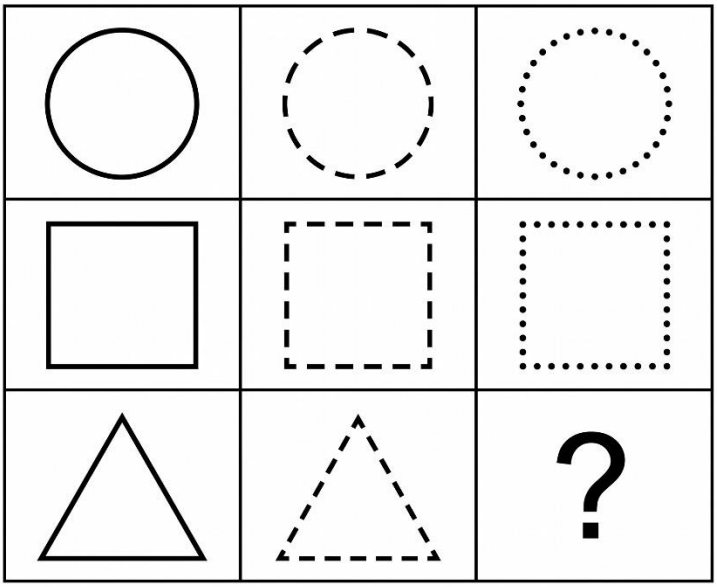
A. pentagon rotated 90° clockwise (pointing right)

B. pentagon upside down

C. pentagon unchanged

D. pentagon mirrored

117. Which figure completes the 3×3 grid?



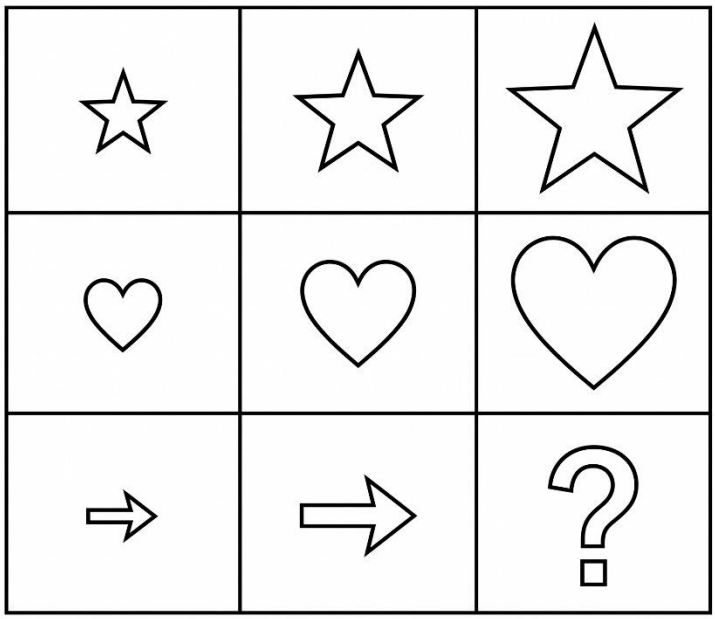
A. dotted-line square

B. dotted-line triangle

C. solid-line triangle

D. dashed-line triangle

118. Which figure completes the 3×3 grid?



A. small arrow

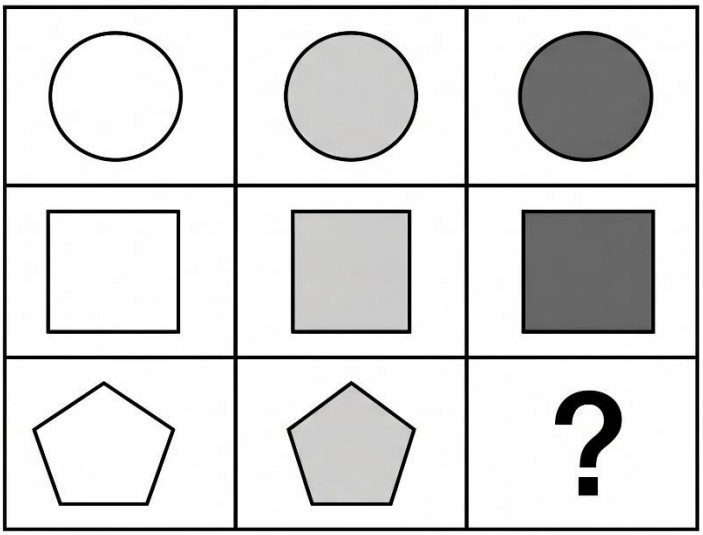
B. medium arrow

C. tiny arrow

D. large arrow

119. Which figure completes the 3×3 grid?

Figure PQ-5



A. white pentagon

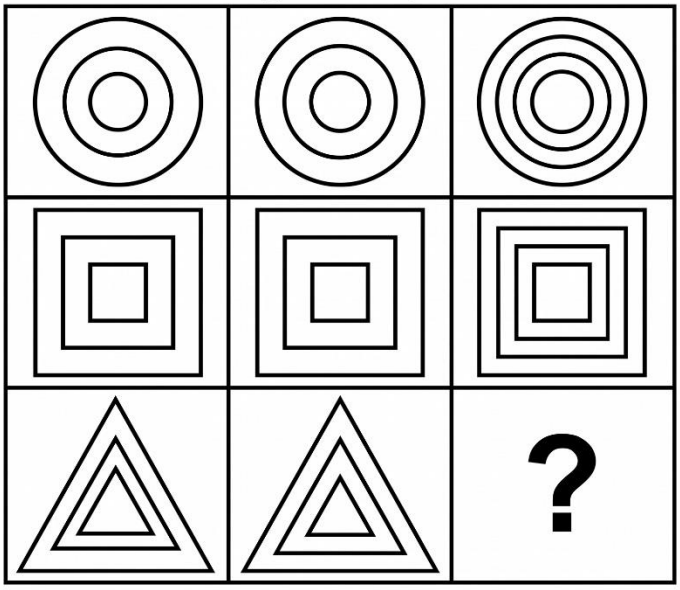
B. light grey pentagon

C. dark grey pentagon

D. solid black pentagon

120. Which figure completes the 3×3 grid?

Figure PQ-6



A. triangle with 4 nested triangles

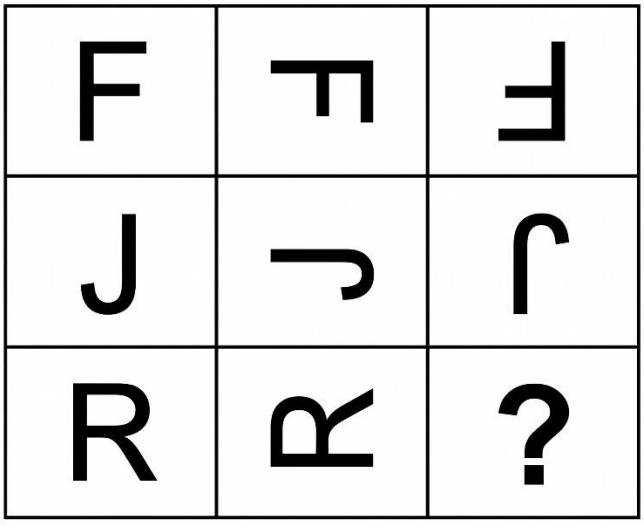
B. triangle with 5 nested triangles

C. plain triangle with no nesting

D. triangle with 6 nested triangles

121. Which figure completes the 3×3 grid?

[Figure PQ-7]



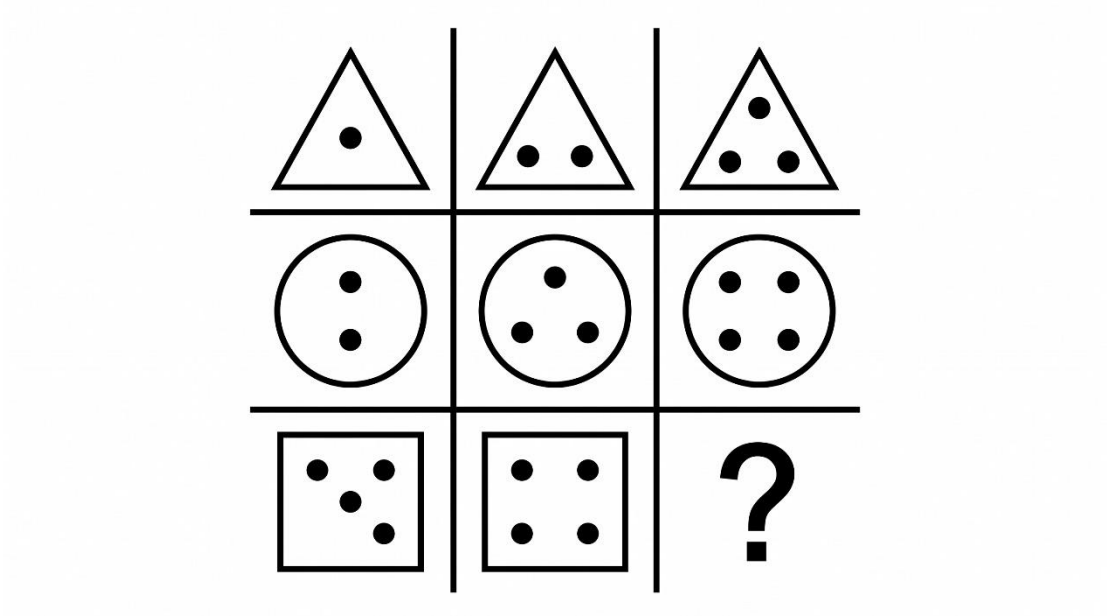
A. R upright

B. R mirrored horizontally

C. R rotated 270° clockwise

D. R rotated 180°

122. Which figure completes the 3×3 grid?



A. square with 4 dots

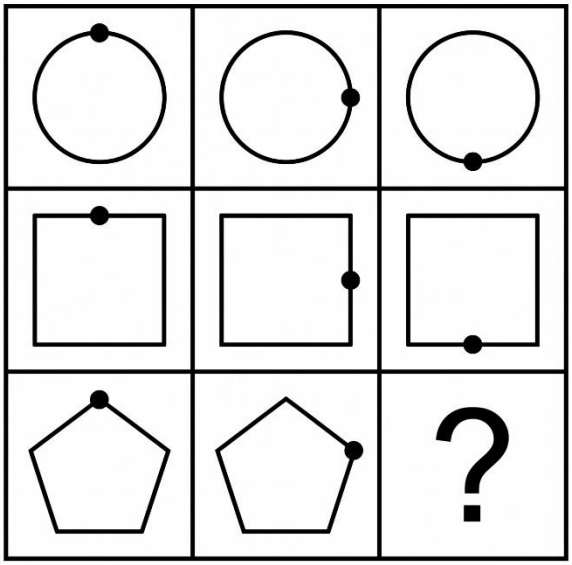
B. square with 5 dots

C. square with 6 dots

D. square with 7 dots

123. Which figure completes the 3×3 grid?

[Figure PQ-9]



A. pentagon with dot at top

B. pentagon with dot at left

C. pentagon with dot at bottom

D. pentagon with no dot

124. Which figure completes the 3×3 grid?

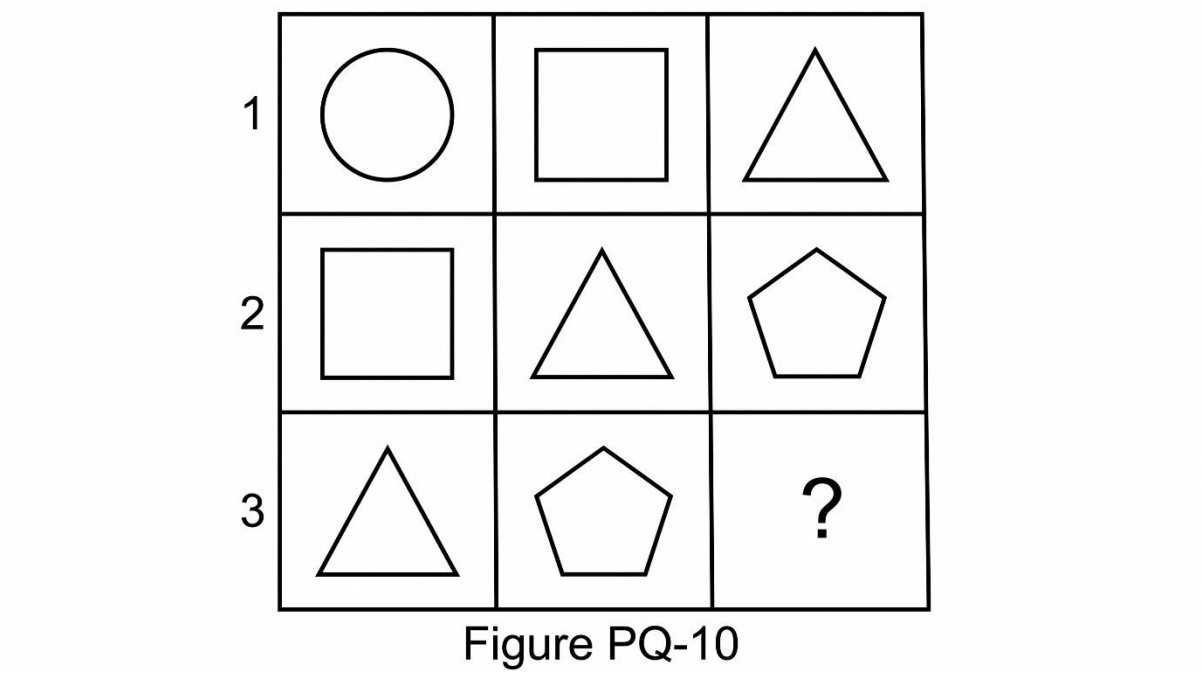


Figure PQ-10

A. circle

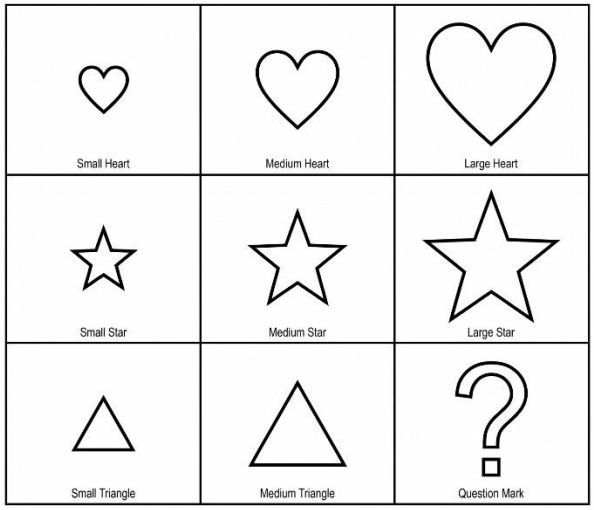
B. star

C. heptagon

D. hexagon

125. Which figure completes the 3×3 grid?

[Figure PQ-11]: PROGRESSION OF SIZE



A. large triangle

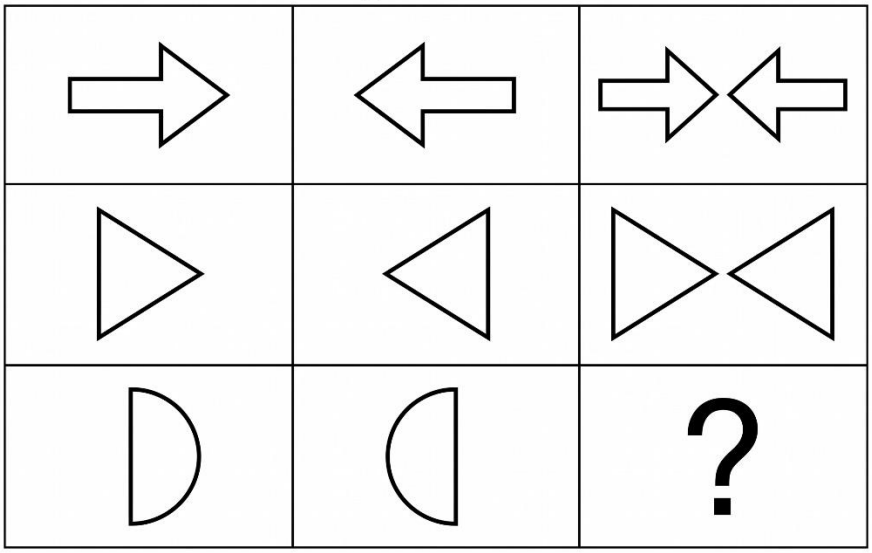
B. medium triangle

C. small triangle

D. tiny triangle

126. Which figure completes the 3×3 grid?

Figure PQ-12



A. full circle

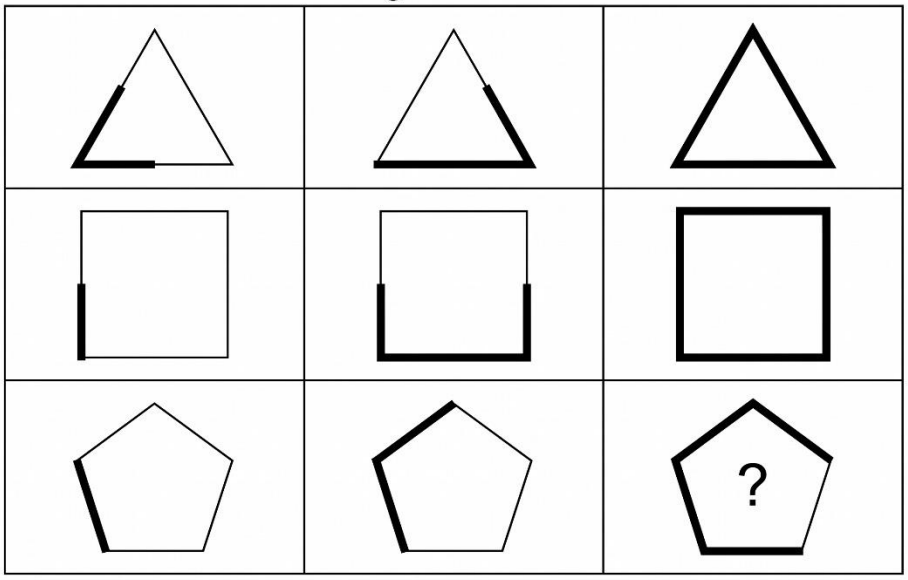
B. two half-circles facing each other with a small gap between

C. one half-circle

D. ellipse

127. Which figure completes the 3×3 grid?

Figure PQ-13



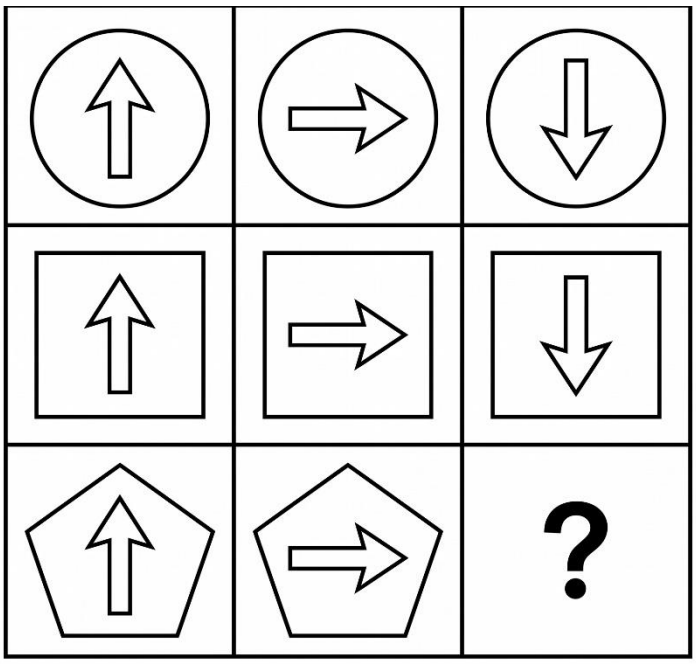
A. pentagon with all 5 sides bold

B. pentagon with 4 sides bold

C. pentagon with 3 sides bold

D. pentagon with 2 sides bold

128. Which figure completes the 3×3 grid?



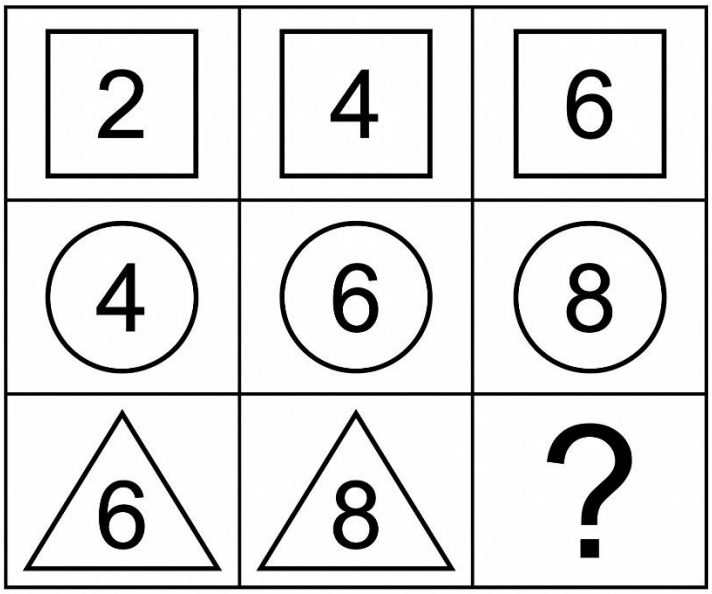
A. pentagon with arrow up

B. pentagon with arrow left

C. pentagon with no arrow

D. pentagon with arrow down

129. Which figure completes the 3×3 grid?



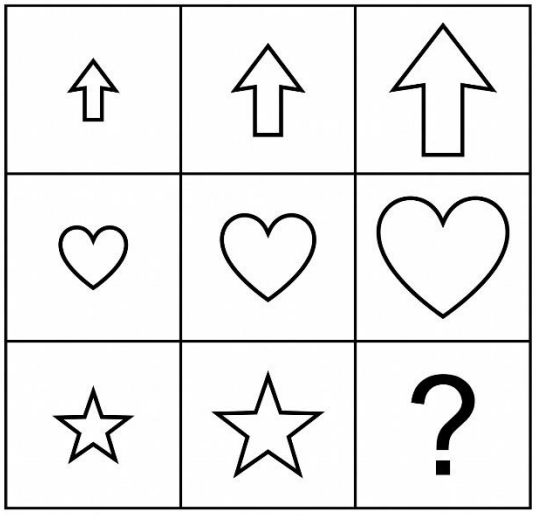
A. triangle with 9 inside

B. triangle with 10 inside

C. triangle with 11 inside

D. triangle with 12 inside

130. Which figure completes the 3×3 grid?



[**Figure PQ-16:** Matrix reasoning puzzle.]

A. large star

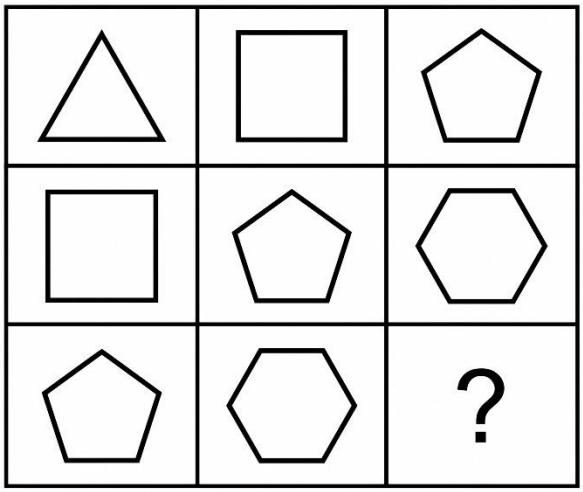
B. very small star

C. medium heart

D. small circle

131. Which figure completes the 3×3 grid?

Figure PQ-17



A. octagon (8 sides)

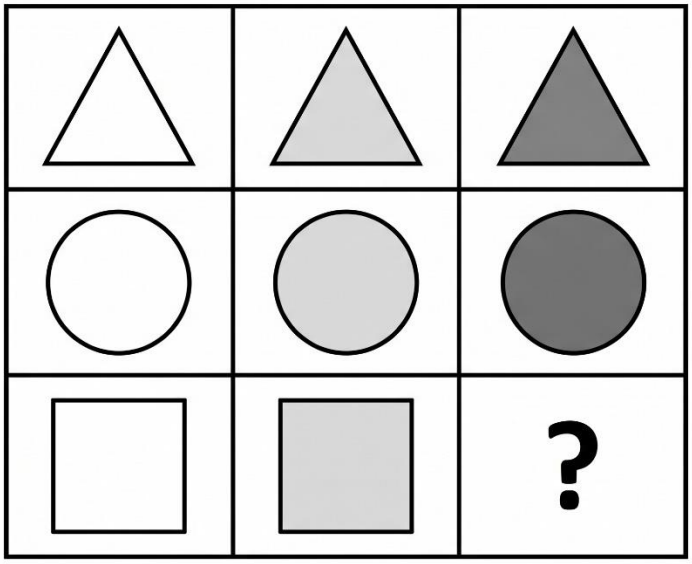
B. nonagon (9 sides)

C. heptagon (7 sides)

D. decagon (10 sides)

132. Which figure completes the 3×3 grid?

[Figure PQ-18]



[Figure PQ-18]

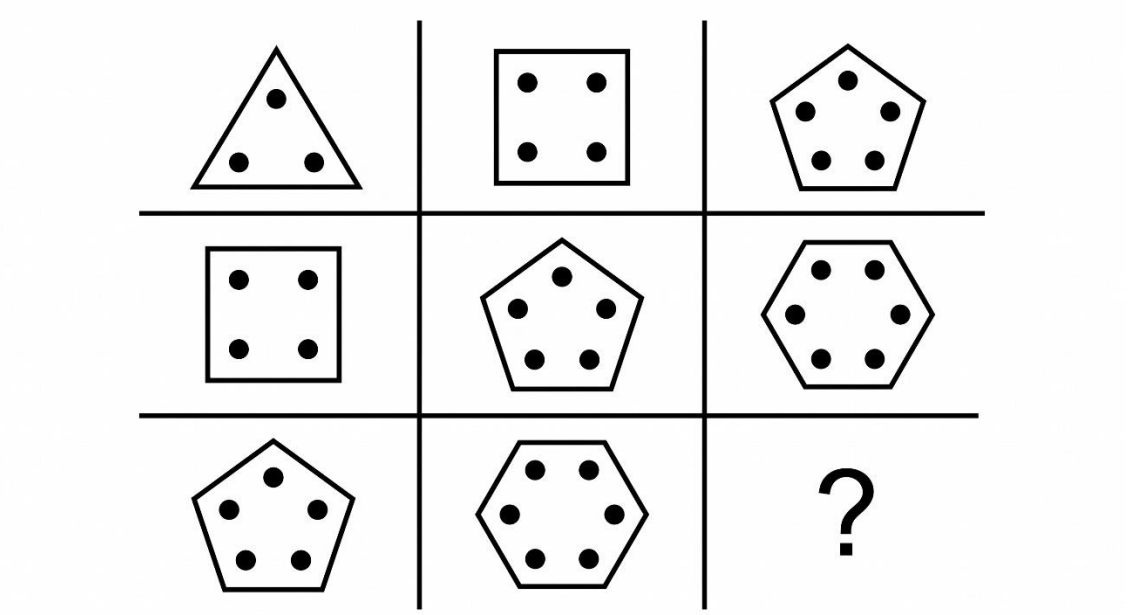
A. white square

B. light grey square

C. medium grey square

D. dark grey square

133. Which figure completes the 3×3 grid?



A. heptagon with 7 dots

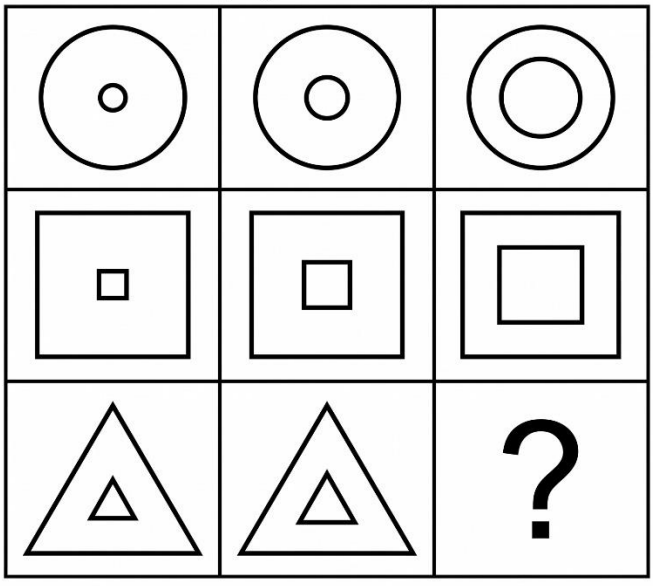
B. octagon with 8 dots

C. circle with multiple dots

D. star with 5 dots

134. Which figure completes the 3×3 grid?

[Figure PQ-20]



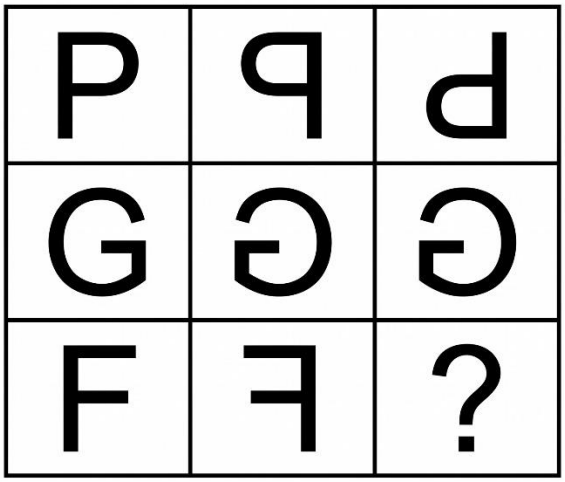
A. triangle with no inner triangle

B. triangle with tiny inner triangle

C. triangle with medium inner triangle

D. triangle fully filled

135. Which figure completes the 3×3 grid?



[Figure PQ-21]

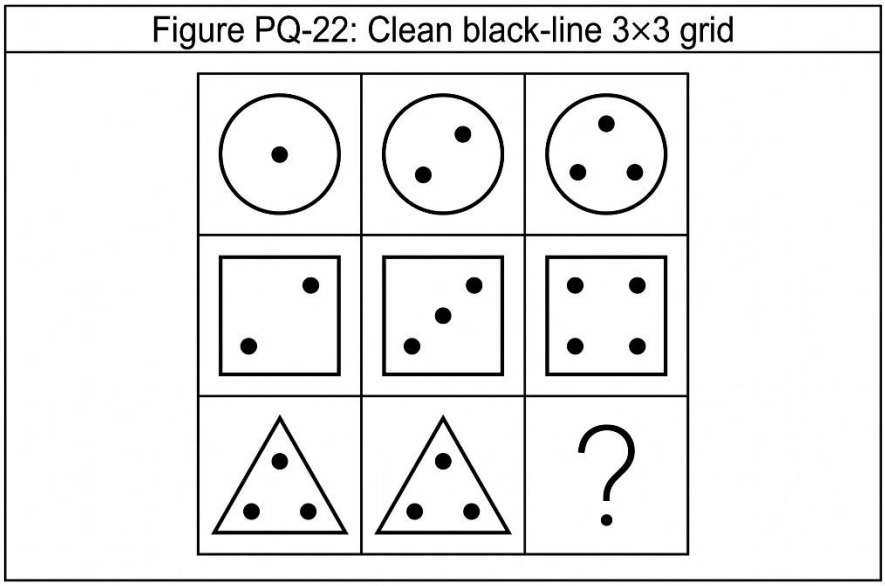
A. F rotated 90° clockwise

B. F rotated 180°

C. F upright

D. F doubled

136. Which figure completes the 3×3 grid?



A. triangle with 3 dots

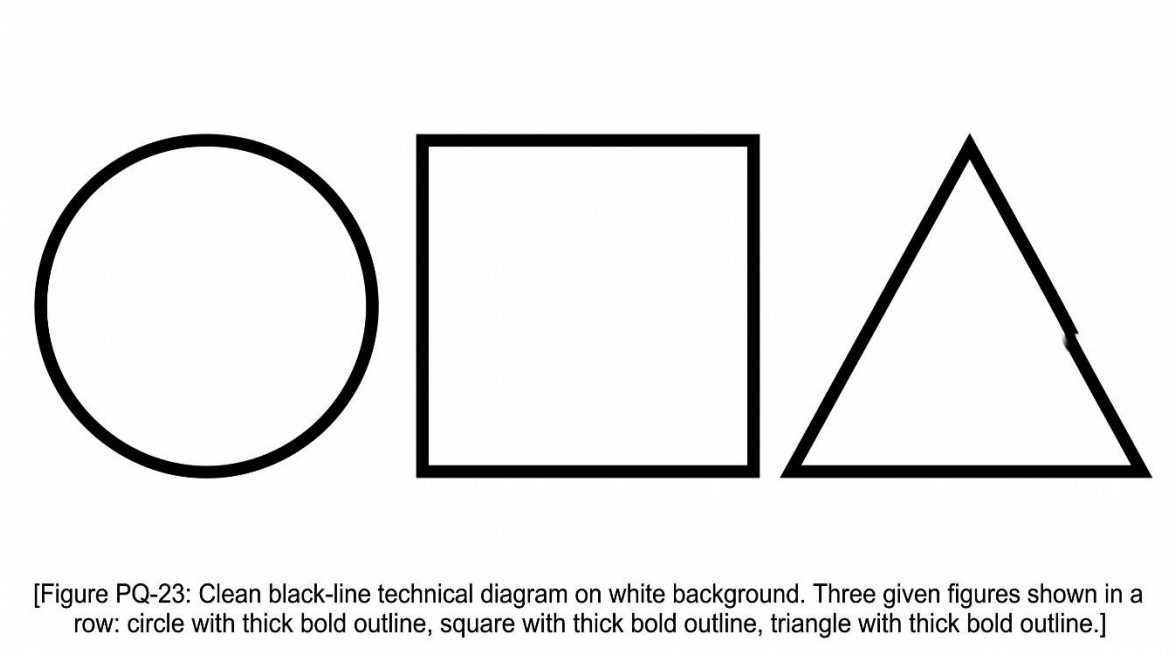
B. triangle with 4 dots

C. triangle with 5 dots

D. triangle with 6 dots

Section H — Figure Classification (Questions 137–158)

137. Which figure belongs with the three given?



[Figure PQ-23: Clean black-line technical diagram on white background. Three given figures shown in a row: circle with thick bold outline, square with thick bold outline, triangle with thick bold outline.]

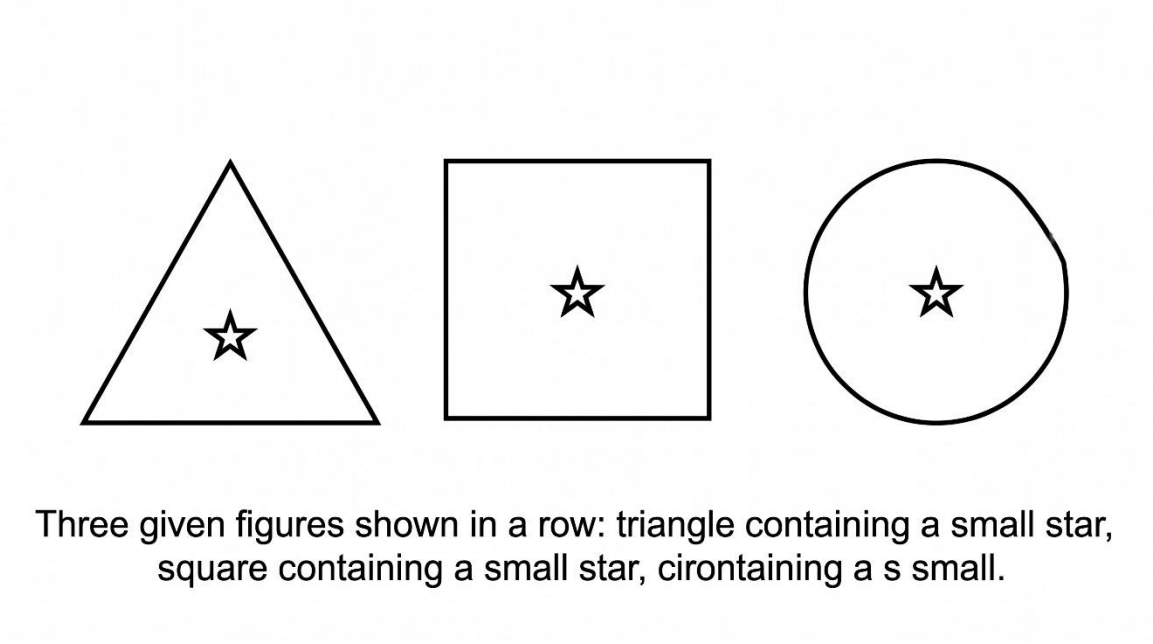
A. pentagon with thick bold outline

B. plain dashed-line circle

C. solid black square

D. triangle with thin outline

138. Which figure belongs with the three given?



Three given figures shown in a row: triangle containing a small star, square containing a small star, cirontaining a s small.

A. triangle alone with no star

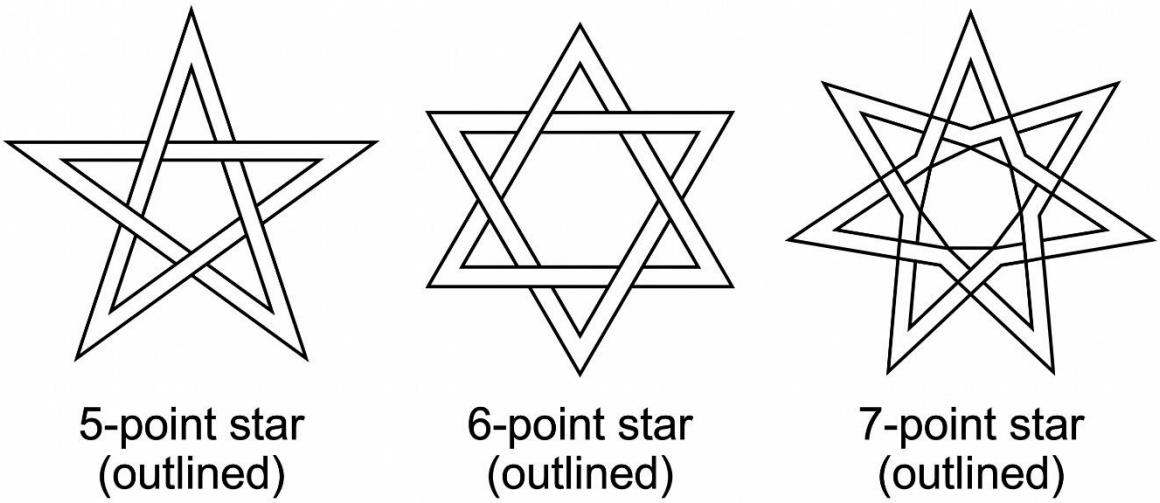
B. star alone with no outer shape

C. circle containing a small heart

D. pentagon containing a small star

139. Which figure belongs with the three given?

Figure PQ-25: Clean Black-Line Technical Diagram



A. 4-point diamond shape

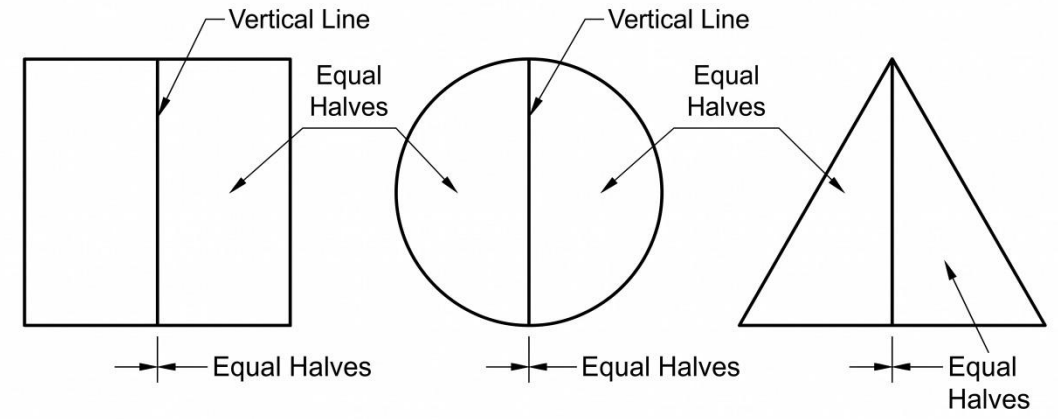
B. outlined 8-point star

C. simple star icon (small)

D. solid black circle

140. Which figure belongs with the three given?

Figure PQ-26



A. square split horizontally

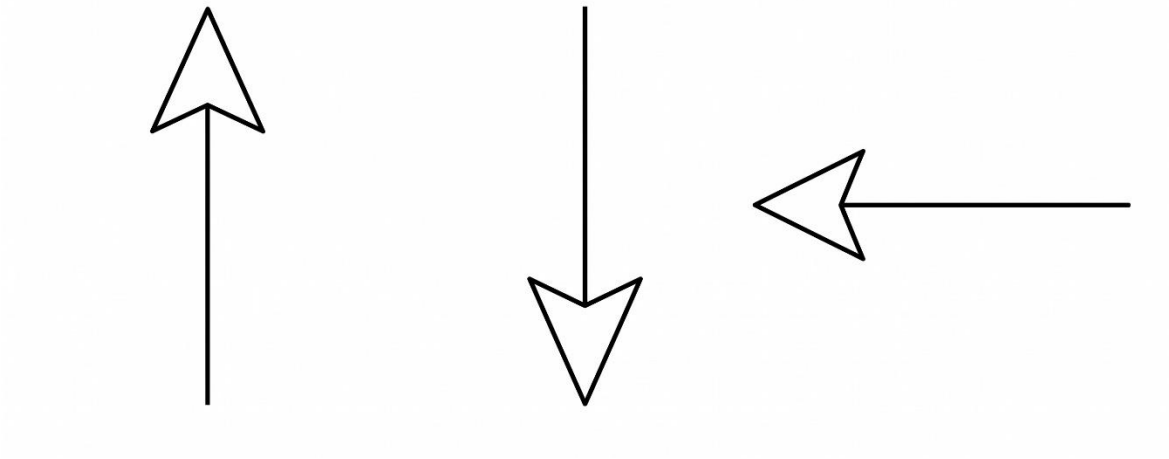
B. circle with no split

C. pentagon split vertically into two equal halves

D. triangle split into three pieces

141. Which figure belongs with the three given?

Figure PQ-27: Clean black-line technical diagram on white background. Three given figures shown in a row: arrow pointing up, arrow pointing down, arrow pointing left. Each is a straight arrow in one of the cardinal directions.



A. circular spiral arrow

B. curved arrow

C. diagonal arrow

D. arrow pointing right

142. Which figure belongs with the three given?

Figure PQ-28: Geometric Center Points

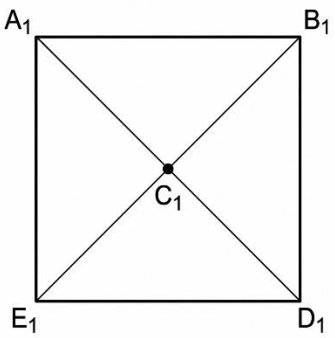


Figure 1: Square

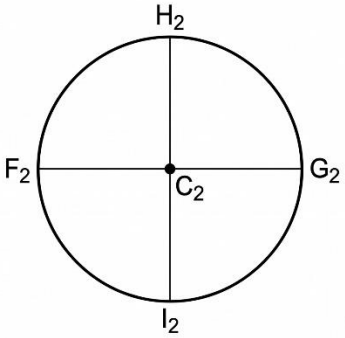


Figure 2: Circle

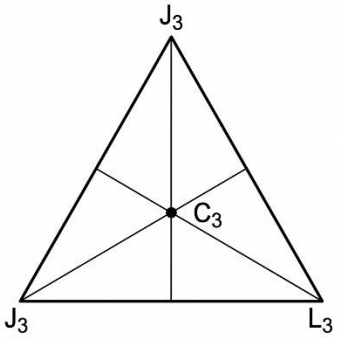


Figure 3: Triangle

Each figure is divided by lines intersecting at its respective geometric center point (C_1, C_2, C_3). Note: In the triangle, these lines represent medians concurrent at the centroid.

A. pentagon with five lines from each vertex meeting at the centre

B. circle with one line through it

C. triangle with one internal line

D. square with no lines

143. Which figure belongs with the three given?

Figure PQ-29

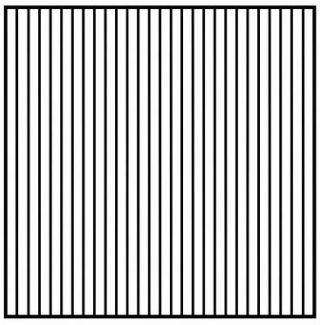


Figure 1: Square

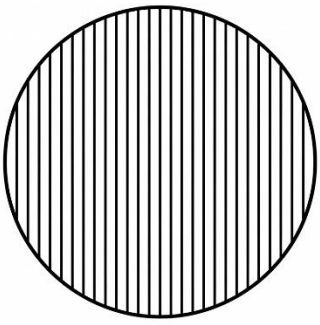


Figure 2: Circle

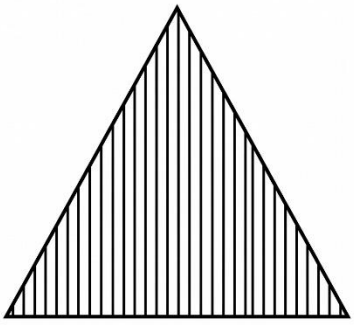


Figure 3: Triangle

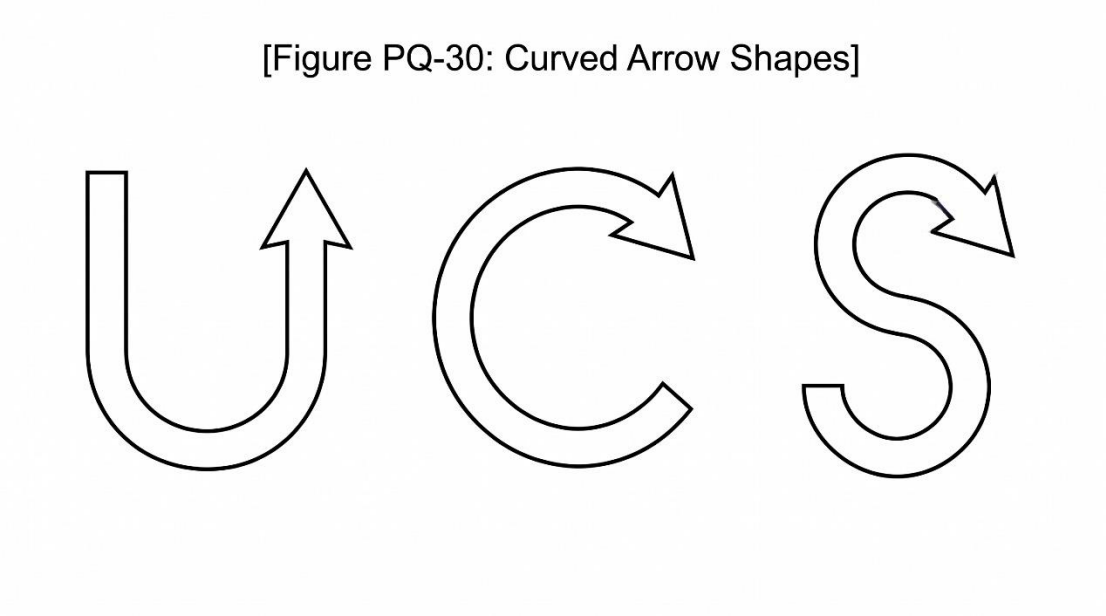
A. dotted square

B. square filled with horizontal stripes

C. pentagon filled with vertical stripes

D. solid black square

144. Which figure belongs with the three given?



A. straight arrow

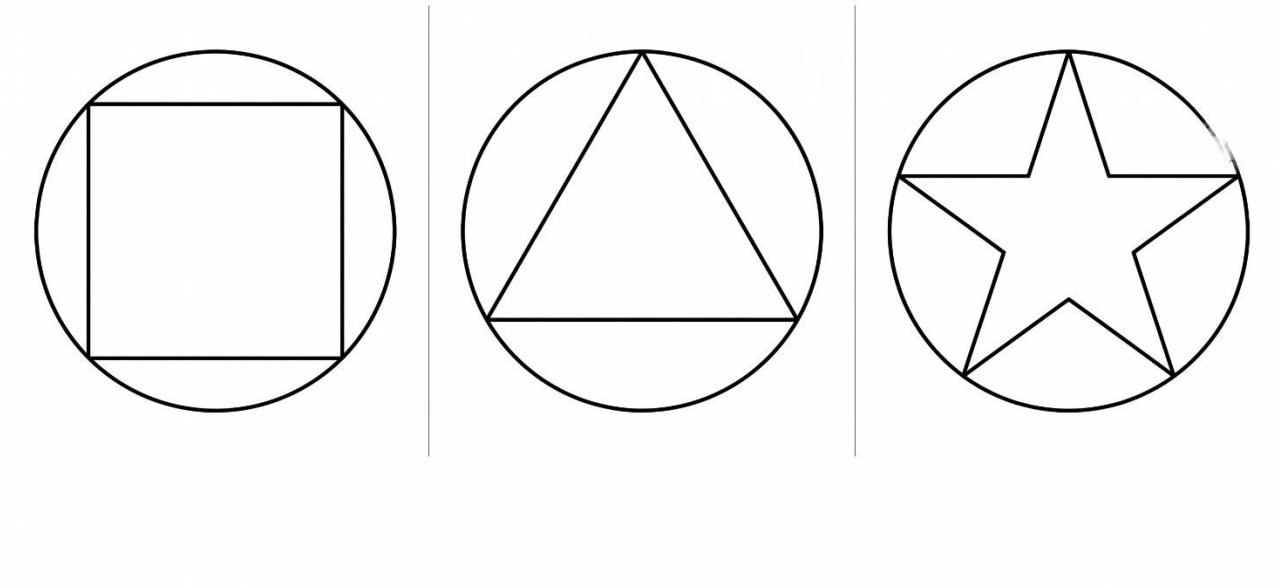
B. curved arrow bent into a J-shape

C. solid filled circle

D. zigzag line

145. Which figure belongs with the three given?

FIGURE PQ-31



A. pentagon drawn inside a larger circle

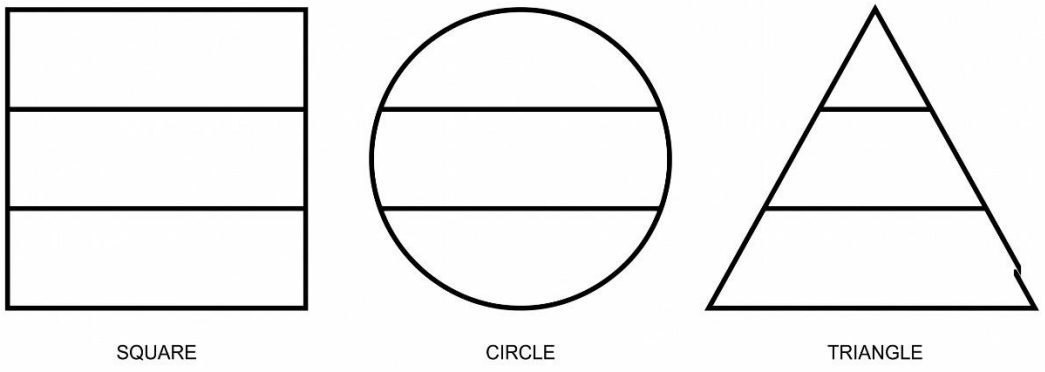
B. circle alone with no inner shape

C. square alone with no surrounding circle

D. triangle drawn outside a circle

146. Which figure belongs with the three given?

[Figure PQ-32: Clean black-line technical diagram on white background.]



Three given figures shown in a row

A. square with vertical stripes

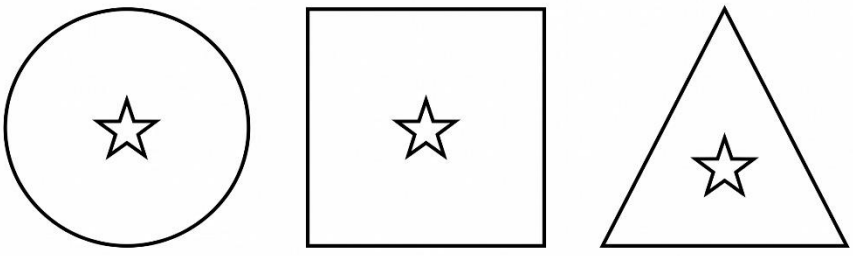
B. circle with 2 stripes

C. plain triangle with no stripes

D. pentagon filled with 3 horizontal stripes

147. Which figure belongs with the three given?

Figure PQ–33:



A. circle with a star at its edge

B. pentagon with a small star at its centre

C. triangle with a star at one corner

D. pentagon with no star

148. Which figure belongs with the three given?

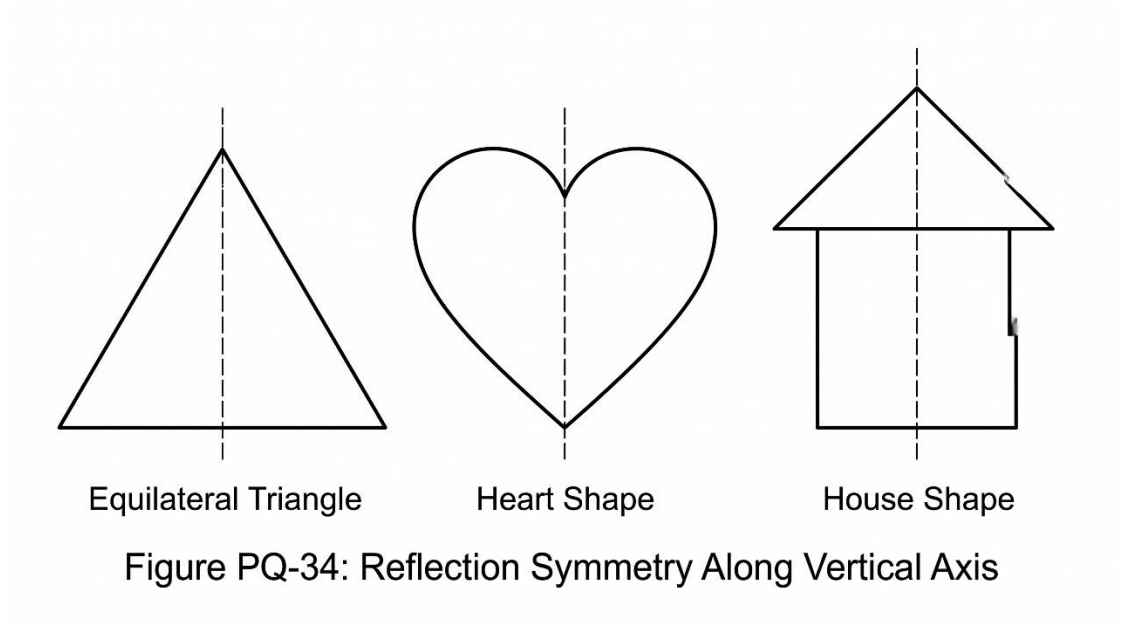


Figure PQ-34: Reflection Symmetry Along Vertical Axis

A. parallelogram (not symmetrical along vertical axis)

B. spiral shape

C. arrow pointing straight up (symmetrical along vertical axis)

D. skewed square

149. Which figure belongs with the three given?

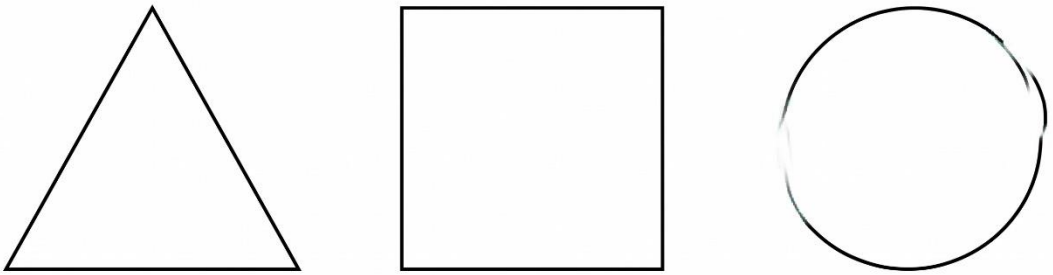


Figure PQ-35:

A. solid black square

B. solid black triangle

C. solid black circle

D. outlined pentagon (no fill)

150. Which figure belongs with the three given?

Figure PQ-36: Clean Black-line Technical Diagram

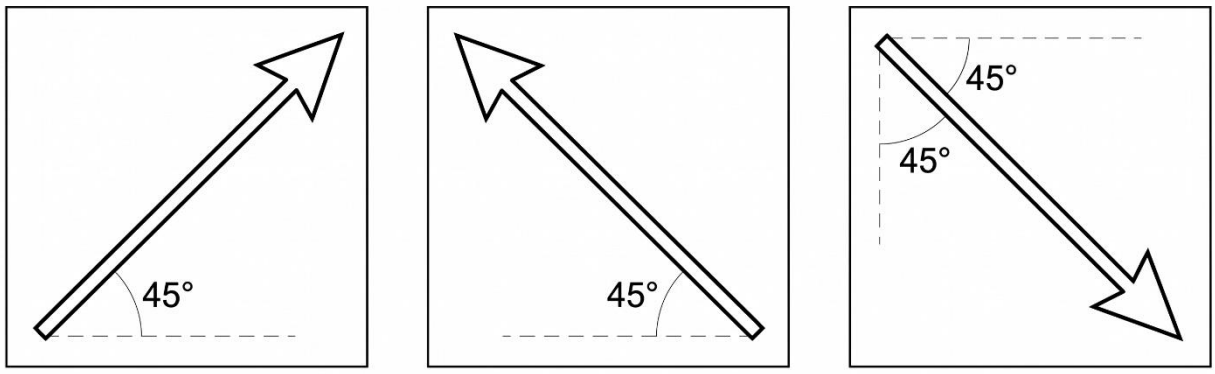


Figure A Figure B Figure C

A. arrow pointing diagonally down-left

B. arrow pointing straight up

C. circular arrow

D. wavy line

151. Which figure belongs with the three given?

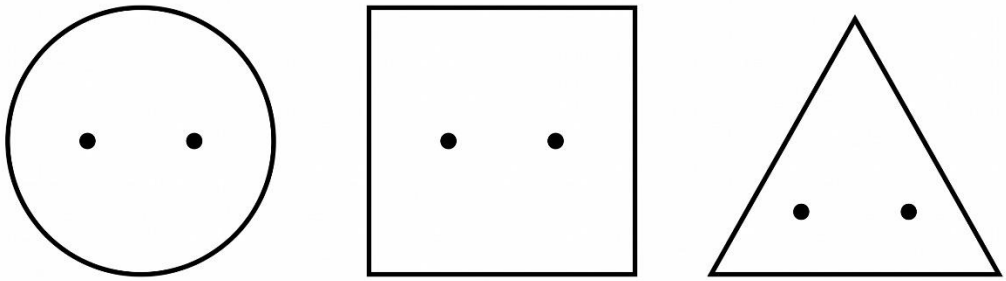


Figure PQ-37

A. plain circle with no dots

B. triangle containing 3 dots

C. pentagon containing exactly 2 small dots

D. square containing 4 dots

152. Which figure belongs with the three given?

[Figure PQ-38]

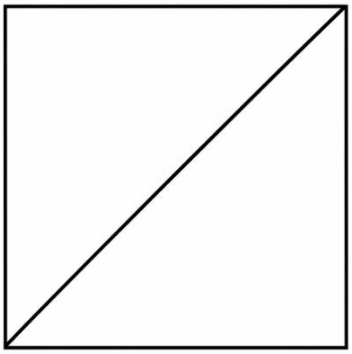


FIGURE 1

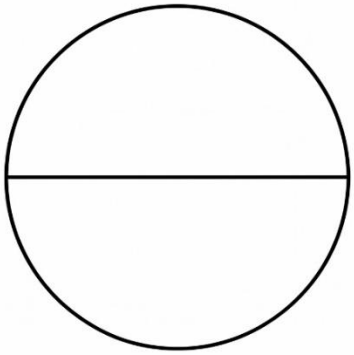


FIGURE 2

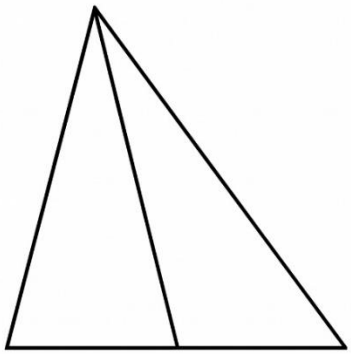


FIGURE 3

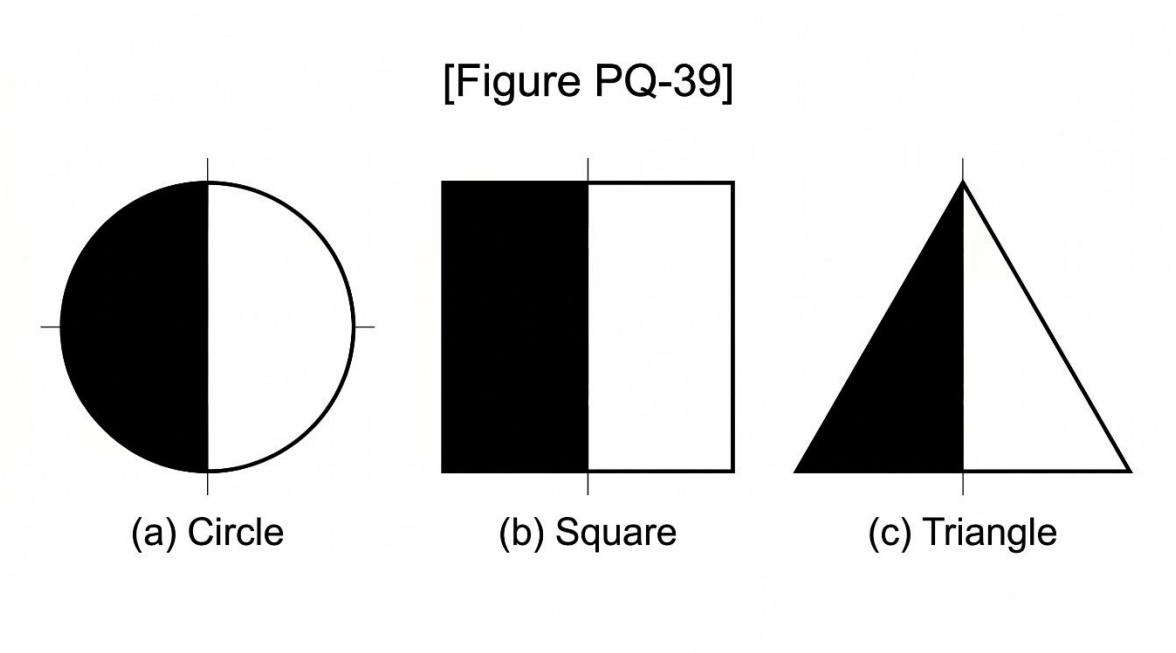
A. square with two diagonals

B. pentagon with one diagonal line

C. circle with no internal line

D. triangle with three medians

153. Which figure belongs with the three given?



A. fully shaded square

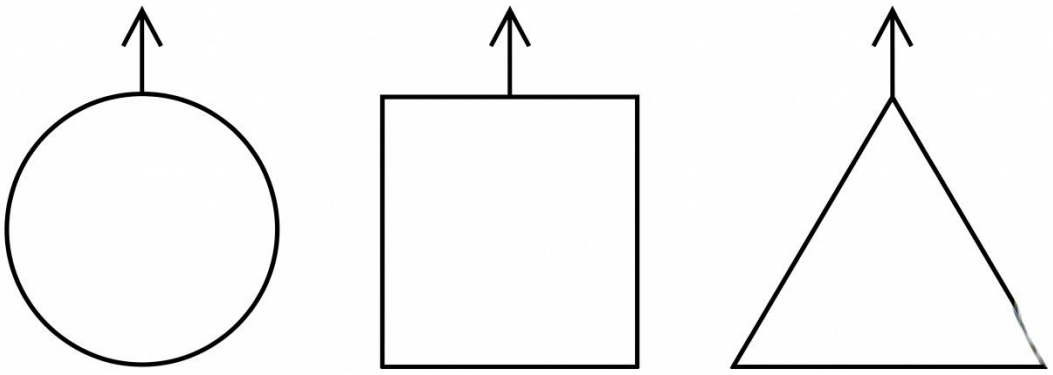
B. circle with no shading

C. striped triangle

D. pentagon with one half (left half) shaded black

154. Which figure belongs with the three given?

[Figure PQ-40:]



A. plain circle with no protruding arrow

B. arrow alone with no outer shape

C. pentagon with a small arrow protruding outward from its top

D. circle with arrow inside (not protruding)

155. Which figure belongs with the three given?

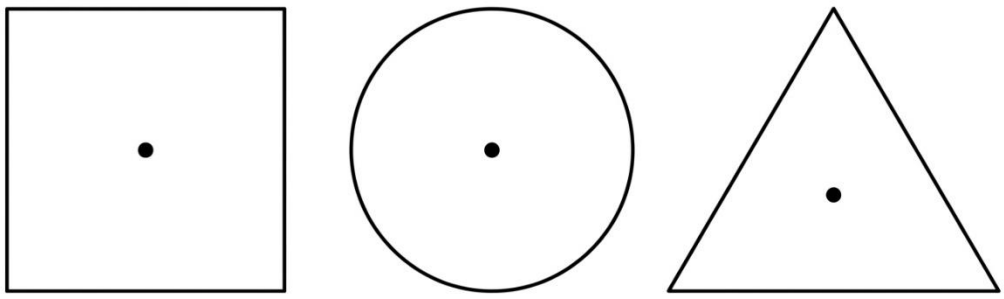


Figure PQ-41

A. pentagon with a single small black dot at its centre

B. circle with no dot

C. solid black square

D. small dot alone with no outer shape

156. Which figure belongs with the three given?

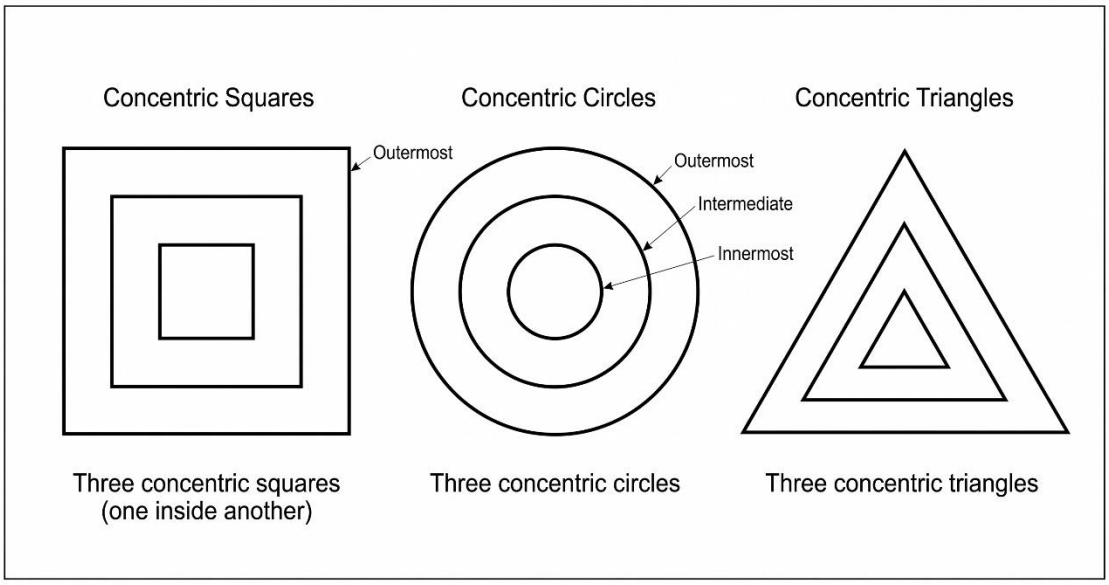


Figure PQ-42: Clean black-line technical diagram on white background.

A. a single square

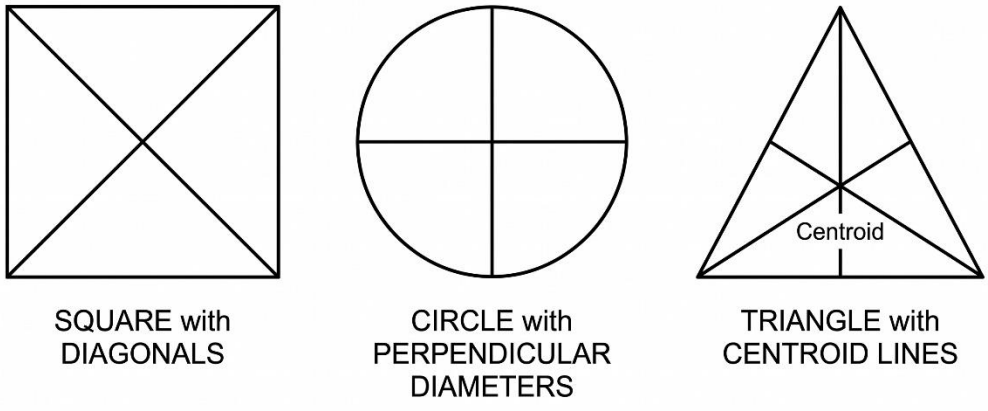
B. a circle inside a triangle

C. a single shape with no nesting

D. three concentric pentagons

157. Which figure belongs with the three given?

Figure PQ-43



Clean black-line illustrations showing internal lines of a square, circle, and triangle.

A. plain circle with no internal lines

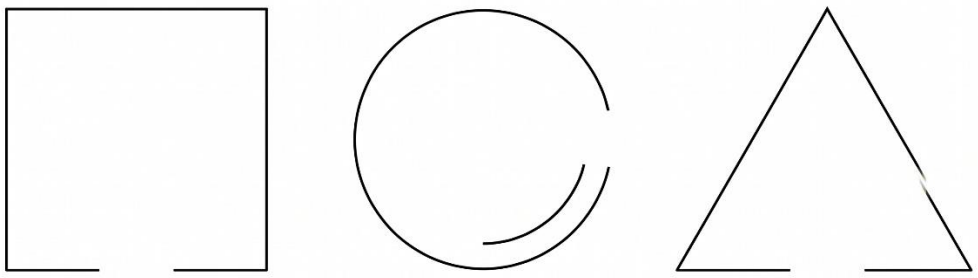
B. pentagon with five internal lines from each vertex forming a star pattern

C. triangle with no internal lines

D. square outline only

158. Which figure belongs with the three given?

Figure PQ-44



A. complete square with all sides intact

B. plain circle with full outline

C. pentagon with one side missing

D. complete triangle with all sides intact

Section I — Paper Folding (Questions 159–176)

159. A square paper is folded in half along the vertical centre line, then folded in half along the horizontal centre line. A hole is punched through all four layers in the outer corner of the small foldedsquare (the corner away from both fold lines). When the paper is unfolded, what does it look like?

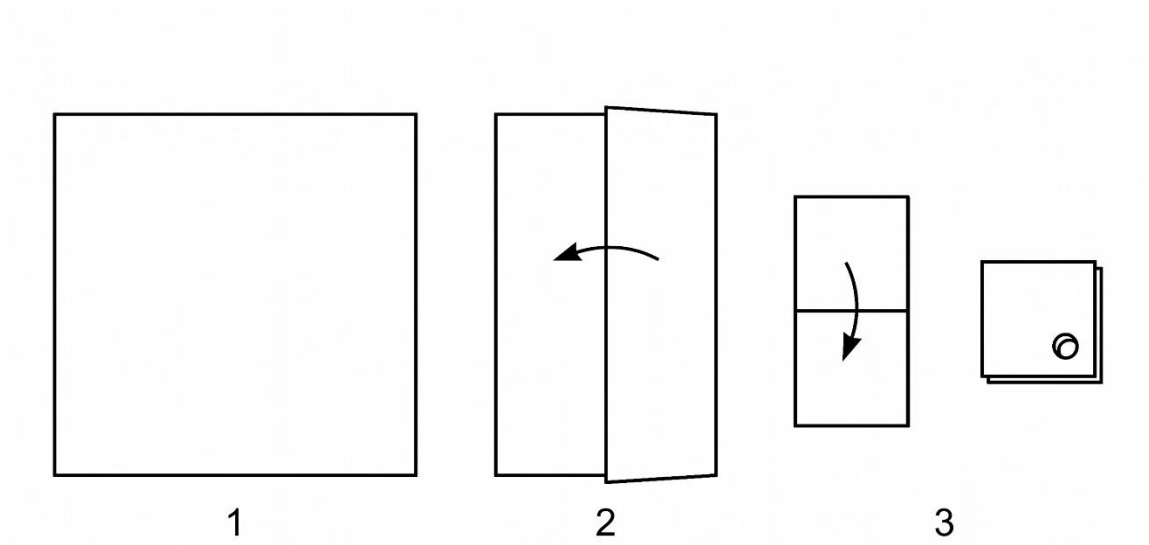


Figure PQ-45

A. Four holes — one at each corner of the unfolded square

B. Two holes on the left edge only

C. Six holes

D. Three holes

160. A square paper is folded in half along a horizontal centre line. A hole is punched through both layers along the bottom edge of the folded rectangle, off-centre to the right. When the paper is unfolded, what does it look like?

A. One hole on the bottom edge

B. Three holes

C. Two holes — one on the top edge and one on the bottom edge, both right of centre

D. Four holes

161. A square paper is folded diagonally from the top-left corner to the bottom-right corner. A hole is punched through both layers off the fold line, near the right corner of the resulting triangle. When the paper is unfolded, what does it look like?

A. One hole near the right corner

B. Two holes mirrored across the diagonal fold line

C. Four holes

D. Three holes

162. A square paper is folded in half along a vertical centre line, then in half along a horizontal centre line, then in half diagonally from the upper-right corner to the lower-left corner of the small folded square. A hole is punched through all eight layers near the centre of the resulting triangle, not on any fold line. When the paper is unfolded, what does it look like?

A. 4 holes

B. 6 holes

C. 7 holes

D. 8 holes arranged symmetrically about the centre

163. A square paper is folded in half along a vertical centre line. Two holes are punched through both layers along the left edge of the folded rectangle — one near the top and one near the bottom. When the paper is unfolded, what does it look like?

A. Four holes — two on the left edge and two on the right edge, symmetrically placed

B. Two holes on the left edge only

C. Six holes

D. Three holes

164. A square paper is folded in half along a horizontal centre line. A hole is punched through both layers at the exact centre of the folded rectangle, not on the fold line. When the paper is unfolded, what does it look like?

A. One hole at the centre

B. Three holes

C. Two holes stacked vertically along the vertical centre line, one above and one below the horizontal centre

D. Four holes

165. A square paper is folded diagonally from the bottom-left corner to the top-right corner. Two holes are punched through both layers — one near the top of the resulting triangle and one near the right side of the resulting triangle, neither on the fold line. When the paper is unfolded, what does it look like?

A. 2 holes

B. 4 holes mirrored in pairs across the diagonal fold line

C. 6 holes

D. 3 holes

166. A square paper is folded in half along a vertical centre line. A hole is punched through both layers along the bottom edge of the folded rectangle, near the corner that is NOT on the fold line. When the paper is unfolded, what does it look like?

A. Two holes at the bottom corners of the unfolded square

B. Four holes at all corners

C. One hole at the bottom-left only

D. Two holes on the side edges

167. A square paper is folded in half along a vertical centre line. A hole is punched directly on the fold line, near the top edge. When the paper is unfolded, what does it look like?

A. Three holes

B. Two holes

C. Four holes

D. One hole on the vertical centre line of the unfolded square, near the top

168. A square paper is folded diagonally from the top-left corner to the bottom-right corner, then folded in half again by bringing the top-right corner to the bottom-left corner of the resulting triangle. A hole is punched through all four layers near the centre of the resulting smaller triangle, not on either fold line. When the paper is unfolded, what does it look like?

A. 2 holes

B. 6 holes

C. 4 holes symmetrically placed about both diagonals of the unfolded square

D. 8 holes

169. A square paper is folded in half along a vertical centre line. Three holes are punched through both layers directly on the fold line (the right edge of the folded rectangle), at three different heights. When the paper is unfolded, what does it look like?

A. 6 holes

B. 3 holes on the vertical centre line of the unfolded square, at three different heights

C. 4 holes

D. 5 holes

170. A square paper is folded in half along a horizontal centre line. A hole is punched along the top edge of the folded rectangle, exactly at the centre of that edge (which lies on the horizontal fold). When the paper is unfolded, what does it look like?

A. One hole at the centre of the unfolded square

B. Two holes

C. Four holes

D. Three holes

171. A square paper is folded in half along a vertical centre line. A hole is punched off the fold line, in the upper-left corner of the folded rectangle. When the paper is unfolded, what does it look like?

A. One hole at the upper-left

B. Four holes at all corners

C. Two holes at the upper corners of the unfolded square

D. Three holes

172. A square paper is folded in half along a horizontal centre line, then in half along a vertical centre line. A hole is punched through all four layers along the bottom edge of the small folded square, not at a corner and not on any fold line. When the paper is unfolded, what does it look like?

A. 2 holes

B. 4 holes — two on the top edge and two on the bottom edge, symmetrically placed about the vertical centre

C. 6 holes

D. 8 holes

173. A square paper is folded in half along a vertical centre line, then in half along a horizontal centre line. A hole is punched through all four layers at the inner corner of the small folded square (the corner where both fold lines meet). When the paper is unfolded, what does it look like?

A. One hole at the centre of the unfolded square

B. Four holes

C. Two holes

D. Eight holes

174. A square paper is folded in half along a horizontal centre line. A hole is punched through both layers along the bottom edge of the folded rectangle, off-centre to the left. When the paper is unfolded, what does it look like?

A. One hole at the bottom-left

B. Four holes at corners

C. Two holes — one on the top edge and one on the bottom edge, both left of centre

D. Three holes

175. A square paper is folded in half along a vertical centre line, then in half along a horizontal centre line. Four holes are punched through all four layers, one at each corner of the small folded square. When the paper is unfolded, what does it look like?

A. 4 holes at the corners only

B. 9 holes — four at the corners, four at the edge midpoints, and one at the centre

C. 6 holes

D. 12 holes

176. A square paper is folded in half along a horizontal centre line. A hole is punched through both layers exactly at the centre of the folded rectangle, not on the fold line. When the paper is unfolded, what does it look like?

A. One hole at the centre

B. Three holes

C. Four holes

D. Two holes stacked vertically along the vertical centre line, one above and one below the horizontal centre

Practice Exam 5: Answer Key and Full Explanations

Section A — Verbal Analogies (Q1–24)

1. B — Tool that delivers substance. A brush delivers paint, just as a pen delivers ink. The pair links an application tool to the medium it carries. Canvas, artist, and colour are paint-related but not the delivery instrument.

2. C — Container of artworks. A gallery holds paintings, just as a library holds books. The pair links a venue to the items it displays. Visitor, exhibit, and building are gallery-associated but not the items held.

3. D — Personality-trait antonyms. A miser is the opposite of generous, just as a coward is the opposite of brave. The pair links opposing character traits. Rich, money, and cheap are miser-associated but not the opposite quality.

4. A — Essential operational component. A wheel is an essential part of a car, just as a lens is an essential part of a camera. Without either, the device cannot perform its function. Road, tire, and axle are car-related but not the defining component.

5. D — Counteracting agent. An antidote counteracts poison, just as a lubricant counteracts friction. Each pair links a reducing agent to the unwanted condition it neutralises. Medicine, doctor, and health are antidote-related but not the targeted problem.

6. B — Maker and repairer of an item. A clockmaker makes and repairs clocks, just as a cobbler makes and repairs shoes. The pair links a craftsperson to their specific specialty. Tinker, mechanic, and jeweller work with different objects.

7. A — Member-to-category. Basil is a type of herb, just as Saturn is a type of planet. Each pair links a specific example to its broader classification. Food, green, and cooking describe basil but are not the category.

8. C — Action a device performs. A silencer muffles sound, just as a microscope magnifies images. The pair links a device to its primary function. Fire and sound describe what the device acts on; silent is the end result, not the action.

9. D — Young-to-mature transformation. A foal grows into a horse, just as an acorn grows into an oak tree. The pair connects an early stage to its mature form. Saddle, stable, and mother are horse-associated but not the mature form.

10. A — Habitat-to-animal. A camel is the iconic animal of the desert, just as a reindeer is the iconic animal of the tundra. The pair links a biome to the animal most associated with it. Sand, heat, and dry describe the desert but are not the animal.

11. B — Guide of a group. A conductor leads an orchestra, just as a tutor guides a student. The pair links a leader to those they direct. Music is the orchestra's product, baton is the conductor's tool, and concert is the venue.

12. C — Gemstone-to-typical-colour. Topaz is traditionally yellow (golden topaz), just as sapphire is traditionally blue. The pair links a gemstone to its classic colour. Precious and clear describe gem properties; orange is a less common topaz variant.

13. A — Prediction-to-subject. A prophecy predicts the future, just as a forecast predicts the weather. Each pair links a predictive statement to its subject matter. Religion, past, and prediction are prophecy-associated but not the predicted subject.

14. D — Inventor-to-invention. Edison is famous for inventing the lightbulb, just as Pasteur is famous for developing the vaccine. The pair links a scientist to their landmark creation. Science, America, and genius are descriptors but not the specific invention.

15. C — Modification of a route or plan. A revision modifies a plan, just as a detour modifies a road route. Each pair links an alteration to what is being changed. Obstacle, complete, and failure are detour-related but not the modification of a plan.

16. B — Disposition-to-mood. An optimist tends to be cheerful, just as a pessimist tends to be gloomy. The pair links a personality type to its characteristic mood. Happy, positive, and bright are optimist-related but cheerful is the direct parallel to gloomy.

17. A — Small part of a larger phenomenon. A droplet is a small part of rain, just as a cinder is a small part of fire. Each pair links a tiny component to the larger event it belongs to. Window, wet, and small describe droplets but are not the larger phenomenon.

18. D — Storage-to-contents. A silo stores grain, just as a cellar stores wine. The pair links a storage structure to its typical contents. Round, tall, and metal describe silo properties but not what is stored inside.

19. B — Agreement-and-its-participants. A contract is an agreement between parties, just as a treaty is an agreement between nations. The pair links an official agreement to its signers. Lawyer, signature, and promise are contract-related but not the participants.

20. C — Workplace-to-product. A bakery produces bread, just as a foundry produces metal goods. The pair links a manufacturing location to its main output. Cake, flour, and oven are bakery-related but bread is the direct parallel product.

21. D — Antonym pair. Scarce is the opposite of abundant, just as reluctant is the opposite of eager. The pair links opposing quantities/qualities. Limited, rare, and few are scarce-related but abundant is the direct opposite.

22. A — Weak-to-strong form of same quality. Faint is a weak form of loud, just as tepid is a weak form of hot. Each pair links a diminished intensity to the full intensity of the same sensory quality. Soft is the antonym of loud; weak and quiet are related but loud is the parallel intensity.

23. B — Mass formation of material. A dune is a mass formation of sand, just as a glacier is a mass formation of ice. Each pair links a geological formation to its material. Water, snow, and wave are related to ice/water but not what a dune is made of.

24. C — Worker-to-primary material. A carpenter works with wood, just as a mason works with brick. The pair links a tradesperson to their main material. Nail, saw, and hammer are carpenter's tools but wood is the material itself.

Section B — Sentence Completion (Q25–44)

25. A — Agreement reached after deliberation. Consensus describes a decision shared by everyone after extended discussion. Divisive, quick, and random contradict the deliberate, unifying outcome described.

26. D — Vividly suggestive prose. Evocative describes writing that conjures vivid images and transports readers. Plain, dull, and casual contradict the vivid imagination described in the sentence.

27. B — Persistent resistance to advice. Stubbornly describes refusing to change behaviour despite teacher warnings. Proudly, quickly, and accidentally don't capture continued defiance after warnings.

28. C — Sense of accomplishment after long effort. Triumph describes the elation of achieving a hard-won goal. Fear, boredom, and confusion contradict the satisfying summit-reaching experience.

29. B — Persistent unyielding pursuit. Relentless describes questioning that doesn't stop until the truth emerges. Casual, brief, and friendly contradict the dogged persistence required.

30. A — Complete careful verification. Thorough describes verification that leaves nothing unchecked through multiple experiments. Brief, partial, and quick contradict the rigorous scientific method described.

31. D — Unusually advanced for young age. Precocious describes a child whose talent develops far ahead of typical age expectations. Ordinary, small, and plain contradict early international recognition.

32. C — Carefully chosen words. Measured describes remarks delivered with restraint and precision to defuse tension. Harsh, blunt, and angry would escalate conflict, not defuse it.

33. A — Steady firm commitment. Unwavering describes dedication that never falters during rebuilding work. Partial, minimal, and weak contradict the sustained effort hurricane recovery requires.

34. B — Forward-looking leadership. Visionary describes a leader who sees future possibilities and transforms organisations. Cautious, reluctant, and uncertain contradict the bold transformation described.

35. D — Aware of potential danger. Mindful describes hikers who remain alert to icy conditions while descending. Ignoring, forgetting, and denying contradict the careful awareness safety requires.

36. C — Modest despite accomplishments. Humble describes someone who downplays achievements even after winning awards. Boastful and arrogant contradict modesty; proud is too neutral for the contrast intended.

37. B — Clear and understandable explanation. Lucid describes explanations so clear that complex topics become accessible. Confusing, brief, and vague contradict the clarity required for students to grasp algebra.

38. A — Complete thorough search. Exhaustive describes a search that leaves nowhere unchecked, eventually finding the vault. Quick, casual, and brief contradict the comprehensive effort needed.

39. D — Separated from modern life. Detached describes a village preserving traditions by remaining apart from technology. Close, familiar, and comfortable contradict the cultural isolation described.

40. C — Sharply perceptive taste. Discerning describes a palate that detects subtle flavours others might miss. Weak, ordinary, and plain contradict the refined taste capability.

41. A — Important meaningful addition. Significant describes a contribution that meaningfully advances historical understanding. Small, brief, and trivial contradict years of careful study yielding a contribution.

42. D — Sublime emotional reach. Transcendent describes a performance so moving it surpasses ordinary emotional response. Mediocre, quiet, and brief contradict an audience moved to tears.

43. C — Captivated with wonder. Enchanted describes a child entranced by the magical sight of butterflies. Tired, bored, and confused contradict the joy and wonder described.

44. B — Imposingly difficult to overcome. Formidable describes obstacles whose difficulty requires real perseverance to surmount. Minor, small, and brief contradict the perseverance needed for groundbreaking discoveries.

Section C — Verbal Classification (Q45–60)

45. C — Poetic forms. Ode belongs with limerick, sonnet, and haiku as named forms of poetry. Story, essay, and novel are prose genres, not poetic forms.

46. A — Himalayan-region landlocked Asian countries. Nepal belongs with Tibet, Bhutan, and Mongolia as landlocked Asian countries with strong Buddhist traditions. Egypt, Brazil, and France are on different continents.

47. D — Citrus fruits. Orange belongs with lemon, lime, and grapefruit as citrus fruits sharing acidic juice and citrus-peel oils. Apple, banana, and mango are non-citrus fruits.

48. B — Scientific measuring instruments. Barometer belongs with anemometer, hygrometer, and seismograph as scientific instruments that measure environmental conditions (pressure, wind, humidity, seismic motion). Compass, ruler, and scale measure different physical quantities at a more basic level.

49. A — Volcanically active regions. Iceland belongs with Hawaii, Italy, and Indonesia as places famous for active volcanoes. Egypt, Norway, and France lack significant volcanic activity by comparison.

50. C — Classical composers. Mozart belongs with Holst, Tchaikovsky, and Beethoven as renowned classical music composers. Picasso was a painter, Shakespeare a playwright, and Einstein a scientist.

51. B — Coastal landforms. Cape belongs with fjord, peninsula, and isthmus as land features defined by their relationship to surrounding water. Mountain, plain, and desert are inland landforms.

52. D — Major historical revolutions. Industrial Revolution belongs with American, French, and Russian Revolutions as transformative historical events labelled "revolution." A school dance, football game, and concert are routine events, not historical revolutions.

53. A — Social insects. Wasp belongs with honeybee, ant, and termite as insects that live in organised colonies with defined social roles. Spider is an arachnid; butterfly and beetle are not social colony-builders.

54. C — Gas-giant planets. Neptune belongs with Saturn, Jupiter, and Uranus as the four gas-giant planets of our solar system. Mars, Earth, and Mercury are smaller terrestrial (rocky) planets.

55. D — Ancient civilisations. Carthage belongs with Athens, Sparta, and Rome as major ancient Mediterranean civilisations. Tokyo, New York, and London are modern cities.

56. B — Forms of precipitation. Shower belongs with drizzle, downpour, and mist as forms of water in the atmosphere reaching the ground. Cloud, wind, and sun are weather features but not precipitation events.

57. A — Mountain ranges. Alps belongs with Andes, Himalayas, and Rockies as major mountain ranges. Pacific is an ocean, Amazon a river, and Sahara a desert.

58. D — Parts of a flower. Pistil belongs with stamen, sepal, and anther as parts of a flower's structure. Root, leaf, and trunk are parts of the broader plant, not specifically of the flower.

59. B — Immature forms of animals. Nymph belongs with caterpillar, tadpole, and larva as juvenile life stages before maturity. Mature adult and fully grown are end states; chrysalis is a transitional case but not a free-living juvenile form.

60. C — Seas (enclosed or partially enclosed bodies of saltwater). North Sea belongs with Mediterranean, Caspian, and Black Sea as named seas. Lake Superior is a freshwater lake, Amazon a river, and Pacific Ocean is an ocean (a larger category).

Section D — Number Analogies (Q61–78)

61. D — Rule: multiply by 3. 4×3=12, 6×3=18, so 10×3=30. Each second number is triple the first.

62. A — Rule: divide by 3. 90÷3=30, 60÷3=20, so 45÷3=15. Each second number is one-third the first.

63. B — Rule: multiply by 6. 5×6=30, 7×6=42, so 9×6=54. Each second number is six times the first.

64. C — Rule: subtract 3. 8−3=5, 11−3=8, so 15−3=12. Each second number is the first minus three.

65. D — Rule: n × (n+1). 3×4=12, 4×5=20, so 5×6=30. The second number equals the first multiplied by the next consecutive integer.

66. A — Rule: square root. √16=4, √36=6, so √49=7. Each second number is the square root of the first.

67. B — Rule: multiply by 4, add 2. 5×4+2=22, 7×4+2=30, so 9×4+2=38. The same two-step operation applies to all pairs.

68. D — Rule: divide by 10. 110÷10=11, 130÷10=13, so 170÷10=17. Each second number is one-tenth the first.

69. A — Rule: $n^2 + n$. $2^2+2=6$, $4^2+4=20$, so $5^2+5=30$. The second number equals the first squared plus the first itself.

70. C — Rule: cube. $3^3=27$, $4^3=64$, so $5^3=125$. Each second number is the first multiplied by itself three times.

71. B — Rule: multiply by 2, add 3. 8×2+3=19, 12×2+3=27, so 15×2+3=33. The same two-step operation applies to all pairs.

72. D — Rule: divide by 7. 28÷7=4, 35÷7=5, so 49÷7=7. Each second number is one-seventh the first.

73. B — Rule: multiply by 7. 3×7=21, 5×7=35, so 8×7=56. Each second number is seven times the first.

74. D — Rule: multiply by 2, subtract 1. 6×2−1=11, 9×2−1=17, so 12×2−1=23. The same two-step operation applies to all pairs.

75. A — Rule: divide by 10. 50÷10=5, 40÷10=4, so 70÷10=7. Each second number is one-tenth the first.

76. C — Rule: multiply by 4, add 1. 4×4+1=17, 4×6+1=25, so 4×8+1=33. The same two-step operation applies to all pairs.

77. A — Rule: multiply by 11. 12×11=132, 10×11=110, so 8×11=88. Each second number is eleven times the first.

78. C — Rule: n × (n+1). 6×7=42, 8×9=72, so 10×11=110. The second number equals the first multiplied by the next consecutive integer.

Section E — Number Series (Q79–96)

79. B — Rule: differences are consecutive primes. Add 2, 3, 5, 7, then 11. From 18, add 11 to get 29. The gaps between terms follow the prime number sequence.

80. A — Rule: add 7. Sequence rises by 7 each step (5, 12, 19, 26, 33), so the next term is 33+7=40. Consecutive multiples of 7 starting at 5.

81. C — Rule: divide by 2. Sequence halves (200, 100, 50, 25, 12.5), so the next term is 12.5÷2=6.25. A geometric decrease producing decimals.

82. D — Rule: double. Sequence multiplies by 2 (1, 2, 4, 8, 16, 32), so the next term is 32×2=64. A geometric progression doubling each step.

83. A — Rule: multiply by 2, subtract 1. 3×2−1=5, 5×2−1=9, 9×2−1=17, 17×2−1=33, so 33×2−1=65. The same two-step operation applies to each term.

84. B — Rule: double. Sequence multiplies by 2 (7, 14, 28, 56, 112), so the next term is 112×2=224. A geometric progression with constant ratio 2.

85. D — Rule: differences increase by 1. Add 1, 2, 3, 4, 5, then 6. From 16, add 6 to get 22. The gaps grow by one each step.

86. C — Rule: divide by 4. Sequence shrinks by ÷4 (64, 16, 4, 1), so the next term is 1÷4=0.25. A geometric decrease producing a decimal.

87. B — Rule: perfect squares. Sequence is 2^2, 3^2, 4^2, 5^2, 6^2, so the next term is 7^2=49. Each term is a small integer squared.

88. A — Rule: n × (n+1). 1×2=2, 2×3=6, 3×4=12, 4×5=20, 5×6=30, 6×7=42, 7×8=56, so 8×9=72. Each term is the product of consecutive integers.

89. D — Rule: differences increase by 1. Add 1, 2, 3, 4, 5, 6, then 7. From 27, add 7 to get 34. The gaps grow by one each step.

90. C — Rule: multiply by 3, add 1. 1×3+1=4, 4×3+1=13, 13×3+1=40, 40×3+1=121, so 121×3+1=364. The same two-step operation applies to each term.

91. B — Rule: descending squares. Sequence is 10^2, 9^2, 8^2, 7^2, 6^2, so the next term is 5^2=25. Each term is a smaller integer squared.

92. D — Rule: multiply by 2, add 1. 5×2+1=11, 11×2+1=23, 23×2+1=47, 47×2+1=95, so 95×2+1=191. The same two-step operation applies to each term.

93. A — Rule: descending squares. Sequence is 12^2, 11^2, 10^2, 9^2, 8^2, so the next term is 7^2=49. Each term is a smaller integer squared.

94. C — Rule: multiply by 3. Sequence multiplies by 3 (5, 15, 45, 135), so the next term is 135×3=405. A geometric progression with ratio 3.

95. B — Rule: Fibonacci sum. Each term equals the sum of the two previous terms (8+13=21). The pattern builds from prior values, growing in a self-referential way.

96. D — Rule: add 11. Sequence rises by 11 each step (11, 22, 33, 44, 55), so the next term is 55+11=66. Consecutive multiples of 11.

Section F — Number Puzzles (Q97–114)

97. A — Order of operations. Multiply before adding: 5×4=20, then 20+12=32. Multiplication takes precedence over addition.

98. C — Two-step substitution. From ◇×9=81, ◇=9. Then ◇+16=9+16=25. Solve for the symbol first, then add.

99. B — Division. 240÷8=30. Direct calculation by long division or recognising 30×8=240.

100. A — Substitution with order of operations. Replace △=7 and ○=9. △×○=7×9=63. Then 63−5=58. Multiplication precedes subtraction.

101. D — Difference of squares. 9^2=81 and 7^2=49. Then 81−49=32. Square each number first, then subtract.

102. B — Two-step substitution. From ☆+18=30, ☆=12. Then ☆×5=12×5=60. Solve for the symbol first, then multiply.

103. C — Order of operations. Multiply before subtracting: 4×6=24 and 5×2=10. Then 24−10=14. Multiplication takes precedence over subtraction.

104. A — Substitution with exponent. Replace ◇=8. Then $◇^2$+◇=64+8=72. Squaring applies before addition.

105. B — Order of operations with parentheses. Multiply inside parentheses first: 5×13=65. Then 100−65=35. Parentheses force the multiplication before the subtraction.

106. D — Order of operations (left to right for same-precedence). Multiply first: 6×9=54. Then 54÷3=18. Multiplication and division have equal precedence, so they execute left to right.

107. A — Two-step substitution. From △×4=48, △=12. Then △+△=12+12=24. Solve for the symbol first, then add it to itself.

108. C — Order of operations. Multiply before subtracting: 15×8=120. Then 120−50=70. Multiplication takes precedence over subtraction.

109. B — Square then subtract. 11^2=121. Then 121−100=21. Exponents apply before subtraction.

110. D — Two-step substitution. From ☆²=144, ☆=12 (since 12×12=144). Then ☆×3=12×3=36. Take the square root first, then multiply.

111. A — Order of operations. Multiply each product first: 7×6=42 and 3×8=24. Then 42+24=66. Multiplication precedes addition.

112. B — Two-step substitution with squaring. From ◇+○=25 and ○=13, ◇=25−13=12. Then ◇²=12×12=144. Solve for the unknown symbol first, then square.

113. D — Order of operations with parentheses. Multiply inside parentheses first: 5×5=25. Then 200÷25=8. Parentheses force the multiplication before the division.

114. C — Difference of squares. 13²=169 and 12²=144. Then 169−144=25. Square each number first, then subtract.

Section G — Figure Matrices (Q115–136)

115. D — Element-addition progression. Each row adds one element per cell (alone → with dot → with dot and star). The pentagon row must end with the pentagon containing both a dot and a star to complete the progression.

116. A — Rule: 45° clockwise rotation per cell. Bottom row goes pentagon up → pentagon rotated 45° clockwise → ?. Continuing the rotation gives pentagon rotated 90° clockwise.

117. B — Line-style progression. Each row goes solid → dashed → dotted. The triangle row must end with the dotted-line triangle to complete the line-style progression.

118. D — Size progression. Each row grows small → medium → large. The arrow row must end with the large arrow to complete the size progression.

119. C — Fill darkening progression. Each row darkens white → light grey → dark grey. The pentagon row must end with the dark grey pentagon to complete the fill progression.

120. A — Nesting count progression. Each row goes 2 nested → 3 nested → 4 nested. The triangle row must end with 4 nested triangles to complete the nesting progression.

121. D — Rule: 90° clockwise rotation per cell. Bottom row goes R upright → R rotated 90° clockwise → ?. Continuing the rotation gives R rotated 180°.

122. B — Dot count progression. Each row increases dot count by 1 across cells; the starting count increases by 1 going down rows. Bottom row of squares goes 3 dots → 4 dots → 5 dots.

123. C — Clockwise dot rotation. Each row's dot moves clockwise around the perimeter (top → right → bottom). The pentagon row must end with the dot at the bottom to complete the rotation.

124. D — Side-count shift across rows. Each row's shape sequence shifts by one position with a new shape replacing the first. Row 3 ends with the next shape in the side-count sequence: hexagon.

125. A — Size progression. Each row grows small → medium → large. The triangle row must end with the large triangle to complete the size progression.

126. B — Mirror-image combination. Each row shows a shape, its mirror image, then both facing each other with a gap. The half-circle row must end with two half-circles facing each other with a gap between to complete the pattern.

127. C — Bold-side count progression. Each row increases bold sides by 1 per cell. Bottom row of pentagons goes 1 bold side → 2 bold sides → 3 bold sides.

128. D — Rule: 90° clockwise arrow rotation. Each row's internal arrow rotates 90° clockwise across columns. The pentagon row must end with the arrow pointing down.

129. B — Numeral progression. Each row increases the inner number by 2 across cells; starting number increases by 2 going down rows. Bottom row of triangles goes 6 → 8 → 10.

130. A — Size progression. Each row grows small → medium → large. The star row must end with the large star to complete the size progression.

131. C — Side-count shift across rows. Each row shifts by one side count. Row 3 ends with a heptagon (7 sides), the next shape after hexagon (6 sides).

132. D — Fill darkening progression. Each row darkens white → light grey → dark grey. The square row must end with the dark grey square to complete the fill progression.

133. A — Side-count equals dot-count. Each cell shows a polygon with a number of dots equal to its side count, shifting one side count per row. Row 3 ends with a heptagon (7 sides) containing 7 dots.

134. C — Inner-shape size progression. Each row's inner shape grows tiny → small → medium. The triangle row must end with the medium inner triangle to complete the progression.

135. B — Letter transformation pattern. Each row goes upright → mirrored horizontally → rotated 180°. The F row must end with F rotated 180° to complete the transformation sequence.

136. C — Dot count progression with row offset. Each row increases dots by 1 across cells; starting count increases by 1 per row. Bottom row of triangles goes 3 dots → 4 dots → 5 dots.

Section H — Figure Classification (Q137–158)

137. A — Shared attribute: thick bold outline. All three given shapes have noticeably thick black borders. The pentagon with a thick bold outline continues the bold-border attribute.

138. D — Shared attribute: shape containing a small star. All three given shapes have a small star drawn inside. The pentagon containing a small star continues the inner-star attribute.

139. B — Shared attribute: outlined multi-point star with increasing points. The given are 5-point, 6-point, and 7-point outlined stars. The outlined 8-point star continues the multi-point increasing series.

140. C — Shared attribute: divided into two equal halves by a vertical line. The given shapes are bisected vertically. The pentagon split vertically into two equal halves continues the vertical-bisection attribute.

141. D — Shared attribute: straight arrow in a cardinal direction. The given arrows point up, down, and left. The arrow pointing right completes the four cardinal-direction set.

142. A — Shared attribute: multiple internal lines from vertices/edges meeting at the centre. The given shapes have lines from vertices or diameters all meeting at the centre point. The pentagon with five lines from its vertices meeting at the centre continues the radial-line attribute.

143. C — Shared attribute: filled with vertical stripes. The given shapes all have a vertical stripe fill pattern. The pentagon filled with vertical stripes continues the same fill type.

144. B — Shared attribute: curved arrow shaped like a letter. The given arrows form U, C, and S shapes from curved lines. The curved arrow bent into a J-shape continues the letter-shaped curved-arrow category.

145. A — Shared attribute: figure drawn inside a larger circle. The given figures (square, triangle, star) are each placed inside a containing circle. The pentagon drawn inside a circle continues the inscribed-in-circle attribute.

146. D — Shared attribute: filled with 3 horizontal stripes. The given shapes all have exactly three horizontal stripes inside. The pentagon filled with 3 horizontal stripes continues the striping pattern.

147. B — Shared attribute: small star at the centre. The given shapes each have a small star drawn at their centre. The pentagon with a small star at its centre continues the centre-star attribute.

148. C — Shared attribute: vertical-axis (left-right) symmetry. The given shapes (upward triangle, heart, house) are all symmetric about a vertical line. The arrow pointing straight up also has vertical-axis symmetry.

149. D — Shared attribute: outlined shape with no fill. The given shapes (triangle, square, circle) all have empty outlines. The outlined pentagon with no fill continues the empty-outline attribute.

150. A — Shared attribute: arrow pointing along a diagonal direction. The given arrows point up-right, up-left, and down-right (all at 45° angles). The arrow pointing down-left completes the four-diagonal set.

151. C — Shared attribute: contains exactly 2 dots. The given shapes each hold exactly two small dots inside. The pentagon containing 2 dots continues the two-dot attribute.

152. B — Shared attribute: single internal dividing line. The given shapes each have exactly one straight line drawn inside. The pentagon with one diagonal line continues the single-internal-line attribute.

153. D — Shared attribute: left half shaded black. The given shapes each have the left half darkened and the right half white. The pentagon with the left half shaded black continues the left-half shading attribute.

154. C — Shared attribute: small arrow protruding outward from the top. The given shapes (circle, square, triangle) each have a small arrow pointing outward from the top edge. The pentagon with a small arrow protruding outward from the top continues the external-arrow attribute.

155. A — Shared attribute: single black dot at the centre. The given shapes each have one small black dot at their exact centre. The pentagon with a centre dot continues the centre-dot attribute.

156. D — Shared attribute: three concentric same-shape outlines. The given figures show three nested squares, three nested circles, and three nested triangles. Three concentric pentagons continue the three-level nesting attribute.

157. B — Shared attribute: multiple internal lines from vertices to the centre. The given shapes show diagonals (X), perpendicular diameters (+), and vertex-to-centroid medians, each creating a star-like internal pattern. The pentagon with internal lines from each vertex forming a star pattern continues the same attribute.

158. C — Shared attribute: outline with one side or arc missing. The given shapes (square, circle, triangle) each have a clear gap where one boundary segment is absent. The pentagon with one side missing continues the incomplete-outline attribute.

Section I — Paper Folding (Q159–176)

159. A — Outer-corner hole on two-fold paper. Two folds create 4 layers. A corner hole at the outer corner (off both folds) duplicates across both fold axes, producing 4 holes — one at each corner of the unfolded square.

160. C — Off-fold bottom-edge hole. A hole on the bottom edge of the folded rectangle is not on the horizontal fold. It mirrors across the fold to give 2 holes — one on the top edge and one on the bottom edge, both right of centre.

161. B — Off-fold diagonal hole. A hole near the right corner of the triangle is not on the diagonal fold line. It mirrors across the diagonal to produce 2 holes symmetrically placed about the fold.

162. D — Three folds, off-fold central hole. Three folds create 8 layers, and a hole not on any fold duplicates across all three axes. The result is 8 holes arranged symmetrically about the centre of the unfolded square.

163. A — Two off-fold edge holes mirror across vertical fold. Each hole on the left edge mirrors to the right edge across the vertical fold. The two original holes (top and bottom of left edge) give 4 total holes — two on the left edge and two on the right edge.

164. C — Off-fold central hole on horizontal fold. The exact centre of the folded rectangle sits at the horizontal midline of one half, off the horizontal fold. The hole mirrors vertically to give 2 holes stacked vertically along the vertical centre line.

165. B — Two off-fold diagonal holes. Each hole near the top and right of the triangle is off the diagonal fold. Each mirrors across the diagonal, producing 4 holes in mirrored pairs across the diagonal fold line.

166. A — Off-fold bottom-corner hole. A hole at the bottom non-fold corner of the folded rectangle sits at the original bottom-left corner. It mirrors across the vertical fold to the bottom-right corner, giving 2 holes at the bottom corners of the unfolded square.

167. D — On-fold hole near top. A hole punched directly on the vertical fold near the top does not duplicate because both layers share the same point. The result is one hole on the vertical centre line of the unfolded square, near the top.

168. C — Two diagonal folds, off-fold central hole. The square folded along one diagonal then folded along the perpendicular axis of the triangle creates 4 layers. A central off-fold hole duplicates across both diagonals, producing 4 holes symmetrically placed about both diagonals of the unfolded square.

169. B — Three on-fold holes. Three holes punched directly on the vertical fold line do not duplicate because each lies on the fold. The result is 3 holes on the vertical centre line of the unfolded square at three different heights.

170. A — Hole on horizontal fold at centre of top edge. The centre of the top edge of the folded rectangle lies exactly on the horizontal fold line. The hole does not duplicate, leaving one hole at the centre of the unfolded square.

171. C — Off-fold corner hole. A hole at the upper-left corner of the folded rectangle is off the vertical fold. It mirrors across the vertical fold to the upper-right corner, giving 2 holes at the upper corners of the unfolded square.

172. B — Two folds, off-fold edge hole. A hole along the bottom edge of the small folded square (not at a corner and not on any fold) duplicates across both folds. The result is 4 holes — two on the top edge and two on the bottom edge, symmetrically placed about the vertical centre.

173. A — Inner corner is on both folds. A hole at the inner corner of the small folded square sits on both vertical and horizontal fold lines simultaneously. Since the hole is on every fold, it does not duplicate, leaving one hole at the exact centre of the unfolded square.

174. C — Off-fold bottom-edge hole, off-centre left. A hole on the bottom edge of the folded rectangle is not on the horizontal fold. It mirrors across the fold to give 2 holes — one on the top edge and one on the bottom edge, both left of centre.

175. B — Four corner holes on two-fold paper. Each corner of the small folded square sits at a different fold relationship: the outer corner (off both folds) gives 4 holes at original corners, each edge corner (on

one fold) gives 2 holes at opposite edge midpoints, and the inner corner (on both folds) gives 1 hole at the centre. Total = 4+2+2+1 = 9 holes.

176. D — Off-fold central hole on horizontal fold. The centre of the folded rectangle is not on the horizontal fold line. It mirrors vertically to give 2 holes stacked vertically along the vertical centre line, one above and one below the horizontal centre.