

PRACTICE EXAM 4: CCAT-7 LEVEL 10 SIMULATION (176 QUESTIONS)

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

Section A — Verbal Analogies (Questions 1–24)

1. Sapling is to tree as cub is to _____

- A. bear
- B. forest
- C. mother
- D. young

2. Drought is to flood as famine is to _____

- A. food
- B. hunger
- C. feast
- D. plate

3. Scalpel is to surgeon as gavel is to _____

- A. lawyer
- B. judge
- C. police
- D. court

4. Cocoon is to butterfly as eggshell is to _____

- A. bird
- B. mother
- C. nest
- D. chick

5. Stanza is to poem as paragraph is to _____

- A. essay
- B. word
- C. letter
- D. book

6. Ascend is to descend as inhale is to _____

- A. breath
- B. air
- C. exhale
- D. lung

7. Porcupine is to quills as turtle is to _____

- A. water
- B. slow
- C. green
- D. shell

8. Blueprint is to architect as recipe is to _____

- A. food
- B. chef
- C. kitchen
- D. ingredients

9. Veterinarian is to animals as botanist is to _____

- A. doctor
- B. forest
- C. plants
- D. garden

10. Calendar is to dates as compass is to _____

- A. directions
- B. north
- C. needle
- D. travel

11. Egg is to hatch as seed is to _____

- A. ground
- B. flower
- C. water
- D. sprout

12. Cartographer is to map as choreographer is to _____

- A. music
- B. dance
- C. stage
- D. performer

13. Bough is to tree as stem is to _____

- A. flower
- B. leaf
- C. soil
- D. branch

14. Novice is to expert as apprentice is to _____

- A. shop
- B. trade
- C. teacher
- D. master

15. Speedometer is to speed as _____ is to pressure

- A. scale
- B. barometer
- C. clock
- D. weight

16. Marble is to sculptor as canvas is to _____

- A. paint
- B. brush
- C. painter
- D. gallery

17. Incubator is to egg as oven is to _____

- A. heat
- B. food
- C. kitchen
- D. bread

18. Ladder is to climb as parachute is to _____

- A. descend
- B. jump
- C. land
- D. fly

19. Courageous is to fearless as humble is to _____

- A. proud
- B. modest
- C. shy
- D. quiet

20. Moisture is to sponge as light is to _____

- A. dark
- B. sun
- C. solar panel
- D. shadow

21. Lethargic is to energetic as _____ is to talkative

- A. friendly
- B. silent
- C. loud
- D. busy

22. Tributary is to river as branch is to _____

- A. leaf
- B. forest
- C. wood
- D. tree

23. Chisel is to wood as kiln is to _____

- A. fire
- B. heat
- C. clay
- D. potter

24. Dawn is to morning as dusk is to _____

- A. evening
- B. dark
- C. night
- D. sunset

Section B — Sentence Completion (Questions 25–44)

25. After studying the artifact for years, the archaeologist made a _____ discovery that reshaped historical understanding.

- A. trivial
- B. small
- C. brief
- D. monumental

26. The _____ scholar spent decades translating ancient manuscripts that no one else could decipher.

- A. lazy
- B. dedicated
- C. confused
- D. forgetful

27. Despite the storm's _____ winds, the lighthouse keeper continued her duties throughout the night.

- A. ferocious
- B. gentle

C. calm

D. mild

28. The ____ silence of the empty library was broken only by the ticking of a distant clock.

A. noisy

B. crowded

C. profound

D. usual

29. After months of training, the gymnast performed her routine with ____ grace that left judges speechless.

A. clumsy

B. uncertain

C. nervous

D. effortless

30. The mountaineer's ____ ascent of the treacherous peak earned her international recognition.

A. courageous

B. lazy

C. simple

D. brief

31. The young inventor's ____ idea revolutionised how scientists thought about renewable energy.

A. ordinary

B. ingenious

- C. simple
- D. plain

32. The chef's specialty was a ____ dessert that combined unexpected flavours in surprising ways.

- A. plain
- B. boring
- C. whimsical
- D. ordinary

33. The detective approached the crime scene with ____ attention, missing no detail.

- A. casual
- B. careless
- C. brief
- D. painstaking

34. The musician's ____ talent was evident from the moment she first touched the piano keys.

- A. prodigious
- B. small
- C. limited
- D. weak

35. The astronaut described the view of Earth as ____, with colours and patterns visible nowhere else.

- A. ordinary
- B. plain

- C. surreal
- D. boring

36. Despite the ____ size of the package, it required two strong people to lift it safely.

- A. tiny
- B. deceptive
- C. small
- D. fragile

37. The villagers responded with ____ generosity when the flood victims arrived seeking shelter.

- A. boundless
- B. limited
- C. small
- D. cautious

38. The new museum exhibit was so ____ that visitors travelled from across the country to see it.

- A. boring
- B. dim
- C. unremarkable
- D. captivating

39. The teacher's ____ patience helped even the most struggling students gain confidence in their abilities.

- A. weak
- B. extraordinary

- C. brief
- D. uneven

40. The detective found the case ____ — every clue led to more questions rather than answers.

- A. obvious
- B. simple
- C. perplexing
- D. clear

41. The volunteer firefighters showed ____ bravery as they rescued families from the burning building.

- A. selfless
- B. cautious
- C. fearful
- D. slow

42. The artist's ____ use of colour transformed the simple landscape into a masterpiece.

- A. ordinary
- B. plain
- C. dull
- D. masterful

43. After hours of debate, the committee reached a ____ decision that satisfied all parties.

- A. divided
- B. forced

- C. unanimous
- D. quick

44. The young diplomat's _____ approach to negotiation prevented what could have been a serious conflict.

- A. aggressive
- B. tactful
- C. blunt
- D. harsh

Section C — Verbal Classification (Questions 45–60)

45. Ruby, sapphire, emerald — which word belongs with these?

- A. silver
- B. gold
- C. diamond
- D. necklace

46. Saturn, Jupiter, Neptune — which word belongs with these?

- A. Uranus
- B. moon
- C. star
- D. comet

47. Wheat, barley, rye — which word belongs with these?

- A. apple
- B. oats
- C. potato
- D. spinach

48. Picasso, Monet, Van Gogh — which name belongs with these?

- A. Mozart
- B. Shakespeare
- C. Newton
- D. Rembrandt

49. Trombone, trumpet, tuba — which word belongs with these?

- A. violin
- B. flute
- C. French horn
- D. drum

50. Pacific, Atlantic, Indian — which word belongs with these?

- A. Arctic
- B. Mediterranean
- C. river
- D. lake

51. Rectangle, triangle, hexagon — which word belongs with these?

- A. circle
- B. ellipse
- C. sphere
- D. trapezoid

52. Cumulus, stratus, cirrus — which word belongs with these?

- A. rain
- B. nimbus
- C. weather
- D. fog

53. Rosemary, thyme, basil — which word belongs with these?

- A. oregano
- B. carrot
- C. pepper
- D. salt

54. Robin, sparrow, finch — which word belongs with these?

- A. eagle
- B. ostrich
- C. wren
- D. penguin

55. Iron, copper, zinc — which word belongs with these?

- A. wood
- B. plastic
- C. glass
- D. nickel

56. Saturday, Tuesday, Friday — which word belongs with these?

- A. month
- B. Wednesday
- C. weekend
- D. holiday

57. Spanish, Italian, Portuguese — which word belongs with these?

- A. French
- B. German
- C. Russian
- D. Chinese

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

- A. leaf
- B. root
- C. pistil
- D. stem

59. Mercury, Venus, Earth — which word belongs with these?

- A. Saturn
- B. Mars
- C. moon
- D. sun

60. Saxophone, clarinet, flute — which word belongs with these?

- A. trumpet
- B. drum
- C. piano
- D. oboe

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

Section D — Number Analogies (Questions 61–78)

61. (3, 9) is related to (5, 25). What number completes (7, ?)?

- A. 35
- B. 42
- C. 49
- D. 56

62. (40, 8) is related to (35, 7). What number completes (50, ?)?

- A. 10

- B. 12
- C. 14
- D. 8

63. (6, 14) is related to (8, 18). What number completes (10, ?)?

- A. 16
- B. 18
- C. 20
- D. 22

64. (12, 36) is related to (15, 45). What number completes (18, ?)?

- A. 48
- B. 54
- C. 60
- D. 66

65. (2, 8) is related to (3, 27). What number completes (4, ?)?

- A. 64
- B. 56
- C. 48
- D. 32

66. (88, 11) is related to (72, 9). What number completes (96, ?)?

- A. 9

- B. 10
- C. 11
- D. 12

67. (5, 16) is related to (7, 22). What number completes (9, ?)?

- A. 25
- B. 28
- C. 31
- D. 34

68. (100, 4) is related to (75, 3). What number completes (50, ?)?

- A. 4
- B. 3
- C. 2
- D. 1

69. (3, 10) is related to (5, 26). What number completes (7, ?)?

- A. 50
- B. 45
- C. 40
- D. 35

70. (144, 12) is related to (121, 11). What number completes (100, ?)?

- A. 7

- B. 8
- C. 9
- D. 10

71. (7, 50) is related to (8, 65). What number completes (9, ?)?

- A. 72
- B. 76
- C. 82
- D. 90

72. (4, 64) is related to (5, 125). What number completes (6, ?)?

- A. 196
- B. 216
- C. 256
- D. 288

73. (24, 4) is related to (42, 7). What number completes (54, ?)?

- A. 6
- B. 7
- C. 8
- D. 9

74. (10, 30) is related to (12, 36). What number completes (15, ?)?

- A. 45

- B. 48
- C. 50
- D. 54

75. (49, 7) is related to (36, 6). What number completes (25,)?

- A. 4
- B. 5
- C. 6
- D. 7

76. (6, 36) is related to (8, 64). What number completes (9,)?

- A. 72
- B. 76
- C. 81
- D. 90

77. (33, 11) is related to (45, 15). What number completes (27,)?

- A. 9
- B. 7
- C. 6
- D. 8

78. (11, 35) is related to (15, 47). What number completes (20,)?

- A. 50

B. 55

C. 58

D. 62

Section E — Number Series (Questions 79–96)

79. 6, 11, 17, 24, 32, ?

A. 39

B. 41

C. 43

D. 45

80. 2, 4, 8, 16, 32, ?

A. 48

B. 56

C. 64

D. 72

81. 1, 4, 10, 22, ?

A. 46

B. 44

C. 42

D. 40

82. 81, 64, 49, 36, 25, ?

A. 24

B. 20

C. 18

D. 16

83. 2, 5, 10, 17, 26, ?

A. 35

B. 37

C. 39

D. 41

84. 5, 8, 13, 20, 29, ?

A. 40

B. 42

C. 44

D. 38

85. 3, 9, 27, 81, 243, ?

A. 486

B. 624

C. 729

D. 810

86. 11, 22, 44, 88, 176, ?

- A. 264
- B. 296
- C. 320
- D. 352

87. 1, 3, 7, 15, 31, ?

- A. 63
- B. 59
- C. 55
- D. 47

88. 100, 50, 25, 12.5, ?

- A. 6
- B. 6.25
- C. 7
- D. 7.5

89. 5, 6, 8, 11, 15, 20, ?

- A. 23
- B. 24
- C. 25
- D. 26

90. 200, 100, 50, 25, ?

- A. 10
- B. 12
- C. 12.5
- D. 15

91. 2, 3, 5, 7, 11, 13, ?

- A. 15
- B. 17
- C. 19
- D. 21

92. 3, 4, 7, 11, 18, 29, ?

- A. 47
- B. 45
- C. 43
- D. 41

93. 1, 4, 9, 16, 25, 36, ?

- A. 42
- B. 44
- C. 46
- D. 49

94. 64, 32, 16, 8, 4, ?

- A. 0
- B. 1
- C. 2
- D. 3

95. 4, 7, 12, 19, 28, 39, ?

- A. 50
- B. 52
- C. 54
- D. 56

96. 12, 24, 48, 96, ?

- A. 144
- B. 168
- C. 192
- D. 216

Section F — Number Puzzles (Questions 97–114)

97. If $\diamond \times 8 = 72$, what is $\diamond + 11$?

- A. 16
- B. 17
- C. 18
- D. 20

98. $3 \times 6 + 4 = ?$

A. 18

B. 22

C. 24

D. 30

99. If $\Delta = 5$ and $\circ = 8$, what is $\Delta^2 + \circ$?

A. 30

B. 31

C. 33

D. 35

100. $144 \div ? = 9 + 3$

A. 12

B. 14

C. 16

D. 18

101. If $\star + 14 = 25$, what is $\star \times 4$?

A. 38

B. 40

C. 42

D. 44

102. $5 \times 5 - ? = 18$

- A. 5
- B. 7
- C. 9
- D. 11

103. If $\diamond = 12$, what is $\diamond^2 - 100$?

- A. 44
- B. 48
- C. 50
- D. 52

104. $7 + 14 + ? = 40$

- A. 15
- B. 17
- C. 19
- D. 21

105. If $\triangle \times 6 = 54$, what is $\triangle + 7$?

- A. 13
- B. 14
- C. 15
- D. 16

106. $8 \times ? - 4 = 60$

- A. 8
- B. 9
- C. 10
- D. 12

107. $90 \div ? = 4 + 5$

- A. 9
- B. 10
- C. 11
- D. 12

108. If $\star \times 5 = 65$, what is \star^2 ?

- A. 144
- B. 156
- C. 169
- D. 196

109. $6 \times 7 - ? = 30$

- A. 12
- B. 14
- C. 16
- D. 18

110. If $\diamond + \circ = 20$ and $\diamond = 12$, what is $\circ \times 5$?

A. 30

B. 32

C. 36

D. 40

111. $? + 17 = 4 \times 9$

A. 15

B. 17

C. 19

D. 21

112. $2 \times 5 \times ? = 60$

A. 6

B. 7

C. 8

D. 9

113. If $\Delta^2 = 81$, what is $\Delta + 5$?

A. 12

B. 14

C. 16

D. 18

114. $100 \div ? = 25 \div 5$

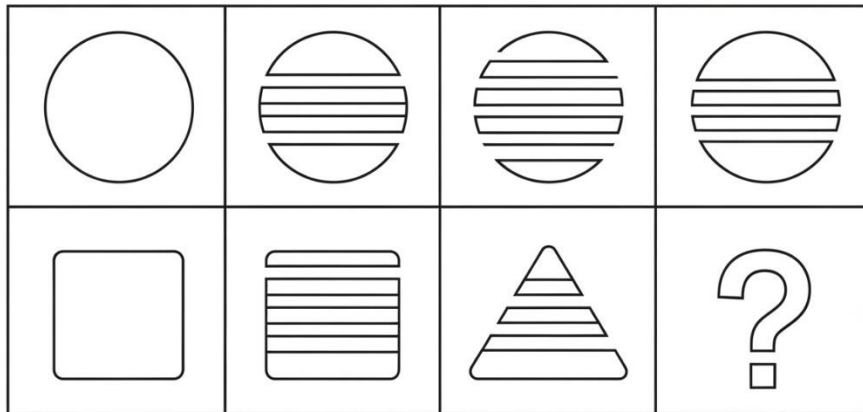
- A. 16
- B. 18
- C. 20
- D. 22

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

Section G — Figure Matrices (Questions 115–136)

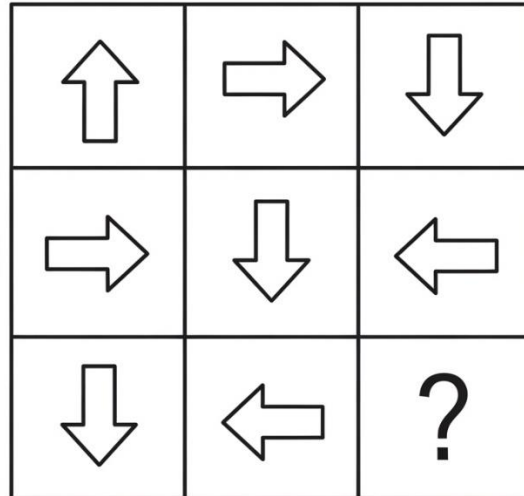
115. Which figure completes the 3×3 grid?

FIGUR PQ-1



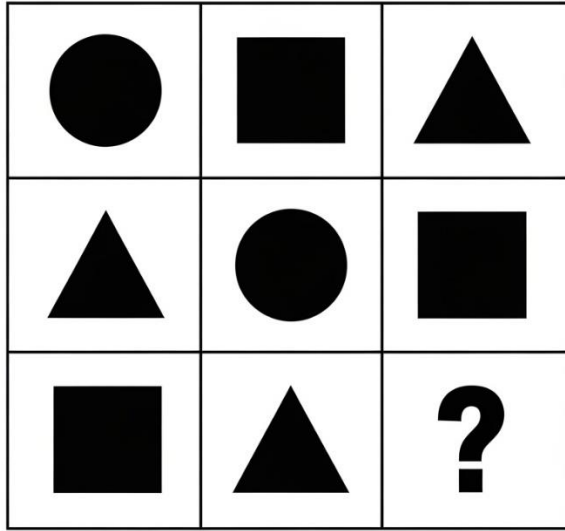
- A. triangle with no stripes
- B. triangle with 2 horizontal stripes
- C. triangle with 3 horizontal stripes
- D. triangle with 4 horizontal stripes

116. Which figure completes the 3×3 grid?



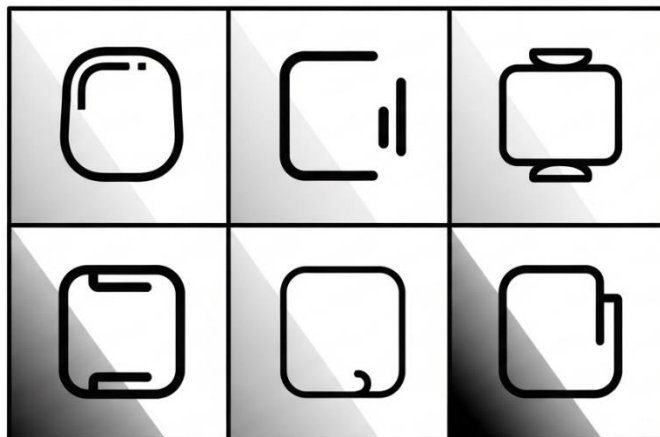
- A. arrow right
- B. arrow down
- C. arrow left
- D. arrow up

117. Which figure completes the 3×3 grid?



- A. circle
- B. square
- C. triangle
- D. pentagon

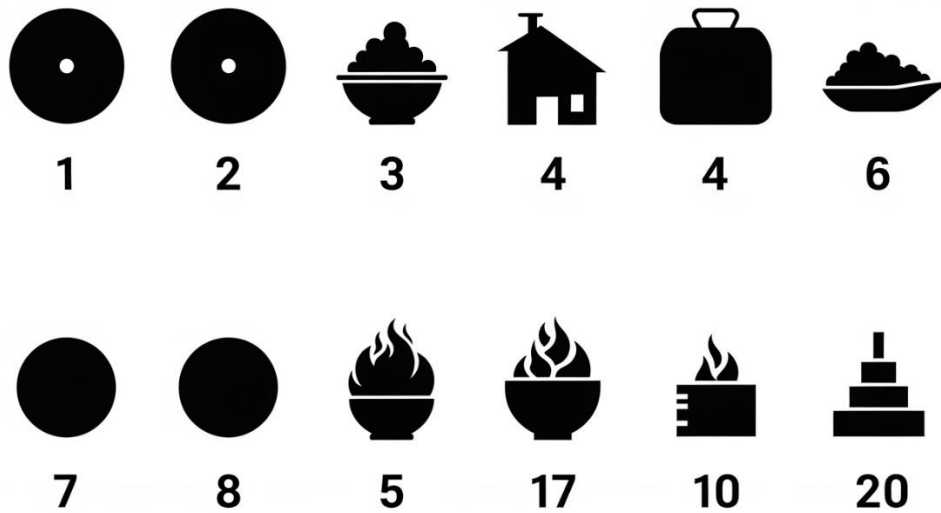
118. Which figure completes the 3×3 grid?



- A. empty triangle

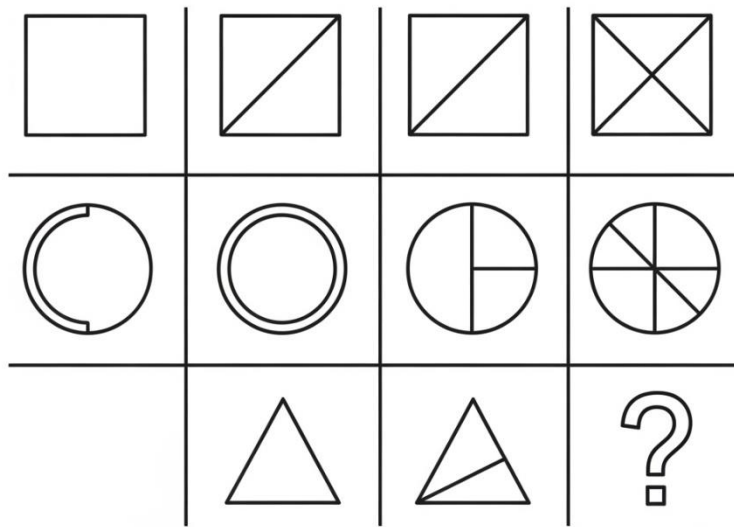
- B. half-shaded triangle
- C. fully shaded triangle
- D. dotted triangle

119. Which figure completes the 3×3 grid?



- A. shape with 3 dots
- B. shape with 4 dots
- C. shape with 6 dots
- D. shape with 5 dots

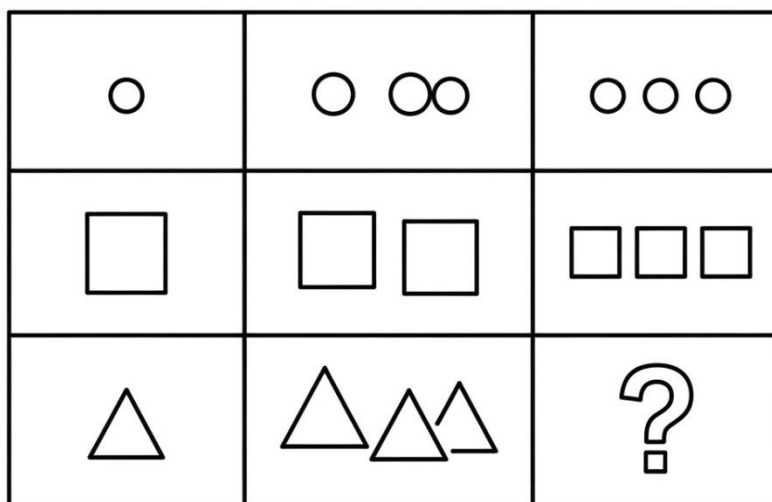
120. Which figure completes the 3×3 grid?



PIQ-6

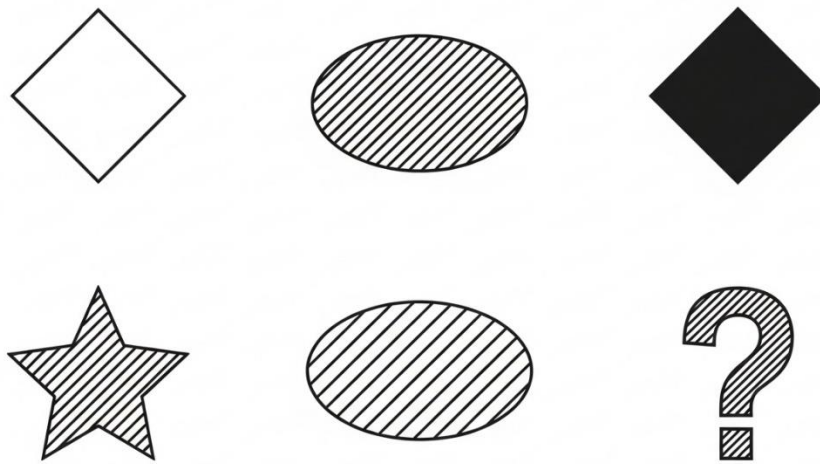
- A. triangle with two internal lines from vertices crossing in an X-like pattern
- B. fully shaded triangle
- C. triangle with three internal lines
- D. triangle outline only

121. Which figure completes the 3×3 grid?



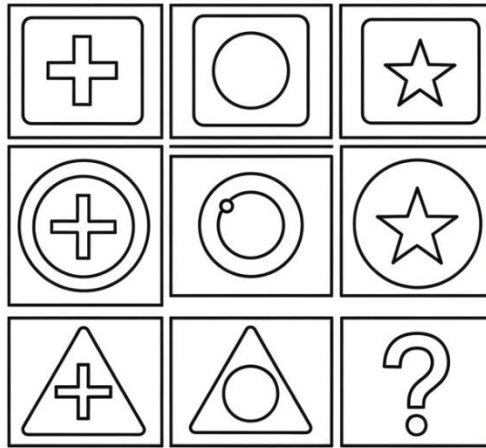
- A. 1 triangle
- B. 3 triangles
- C. 4 triangles
- D. 5 triangles

122. Which figure completes the 3×3 grid?



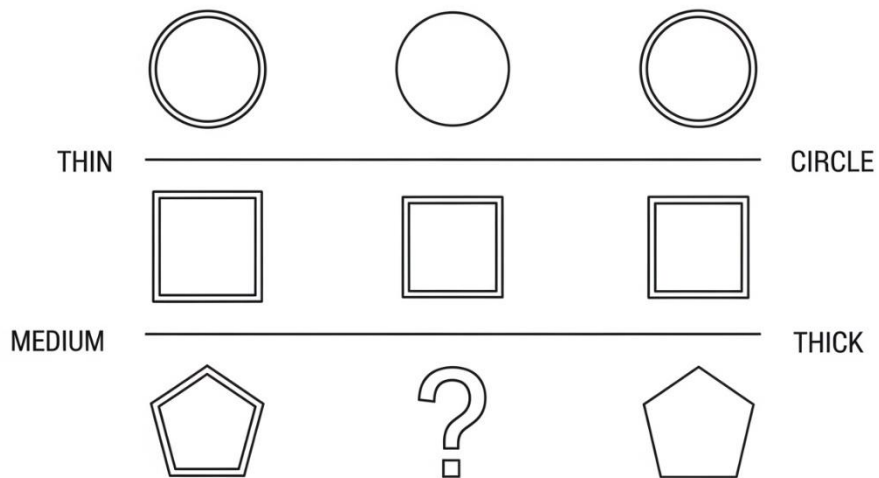
- A. outlined star
- B. striped star
- C. solid black star
- D. dotted star

123. Which figure completes the 3×3 grid?



- A. triangle with cross
- B. triangle with diamond
- C. triangle with arrow
- D. triangle with star

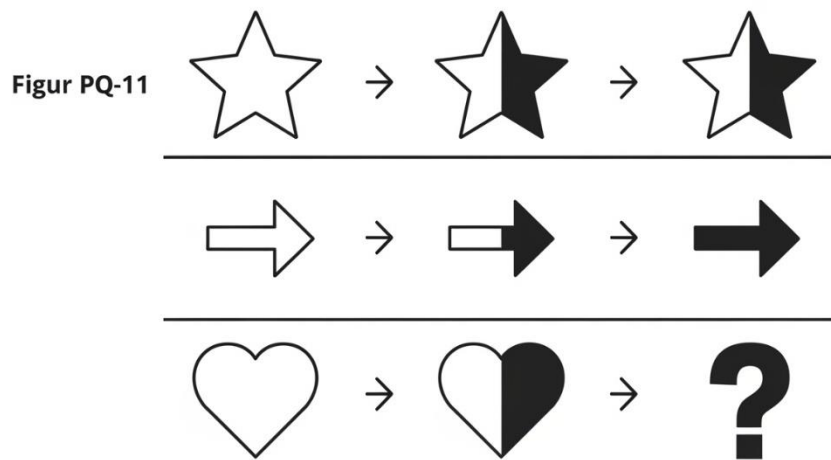
124. Which figure completes the 3×3 grid?



- A. thin pentagon

- B. medium pentagon
- C. thick pentagon
- D. solid pentagon

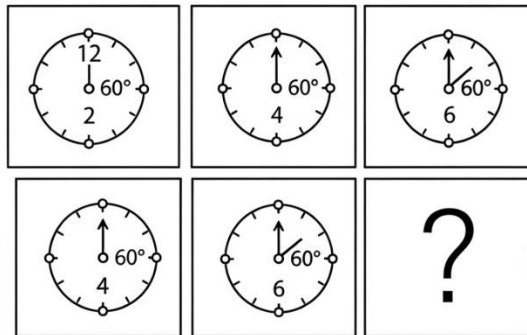
125. Which figure completes the 3×3 grid?



- A. fully shaded heart
- B. empty heart
- C. heart with top half shaded
- D. heart with diagonal shading

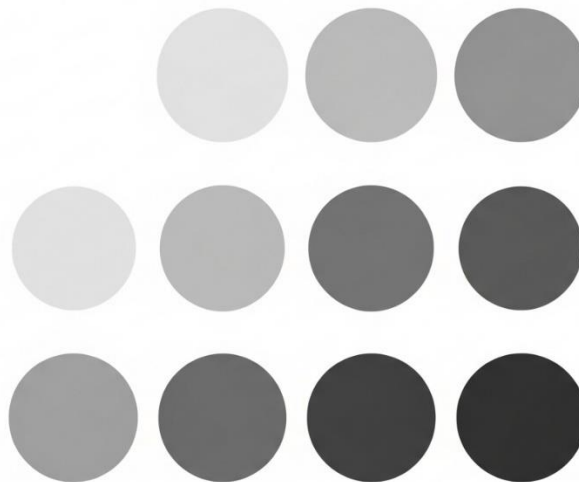
126. Which figure completes the 3×3 grid?

Figure PQ-12



- A. dot at 4 o'clock
- B. dot at 6 o'clock
- C. dot at 10 o'clock
- D. dot at 8 o'clock

127. Which figure completes the 3x3 grid?

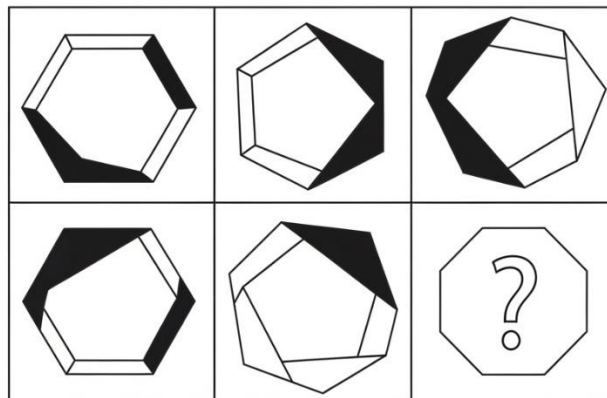


- A. white pentagon

- B. light grey pentagon
- C. dark grey pentagon
- D. striped pentagon

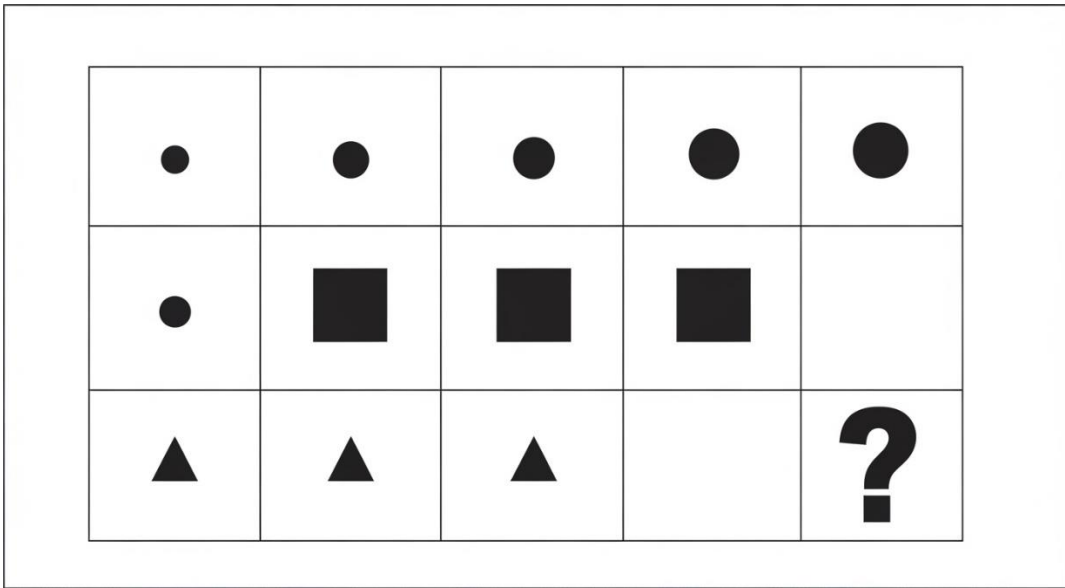
128. Which figure completes the 3×3 grid?

Figure PQ-14



- A. hexagon with bottom side bold
- B. hexagon with lower-left side bold
- C. hexagon with upper-left side bold
- D. hexagon with top side bold

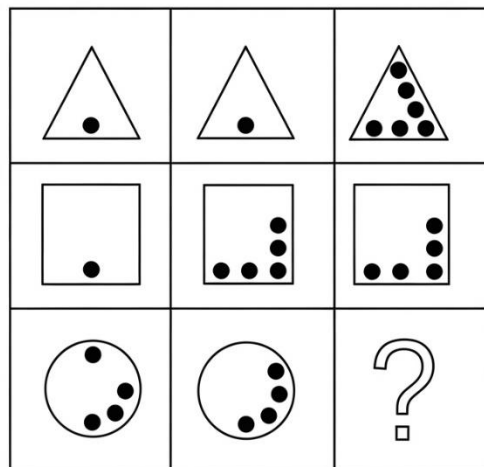
129. Which figure completes the 3×3 grid?



- A. medium triangle
- B. large triangle
- C. tiny triangle
- D. extra-large triangle

130. Which figure completes the 3x3 grid?

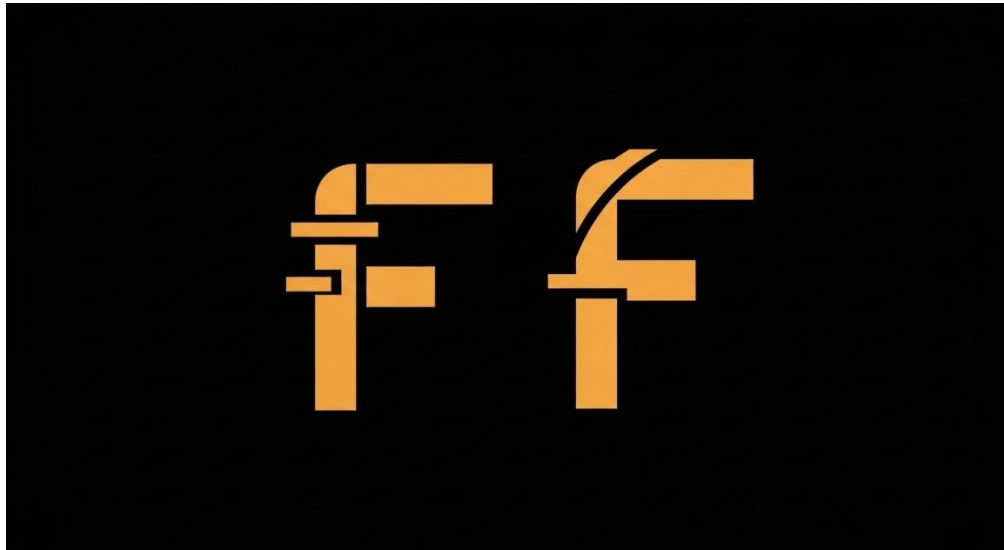
Figure PQ-16



- A. circle with 1 dot

- B. circle with 4 dots
- C. circle with 2 dots
- D. circle with 3 dots

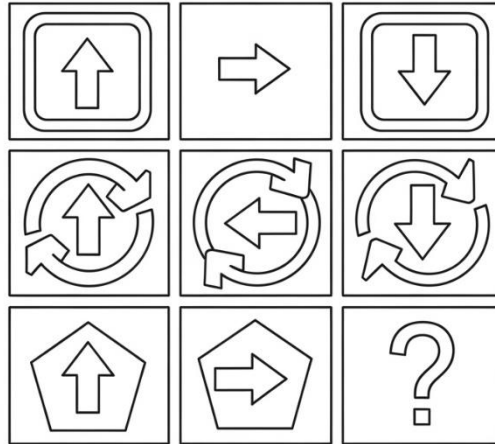
131. Which figure completes the 3×3 grid?



- A. P upright
- B. P rotated 180°
- C. P mirrored then rotated 90° clockwise
- D. P doubled

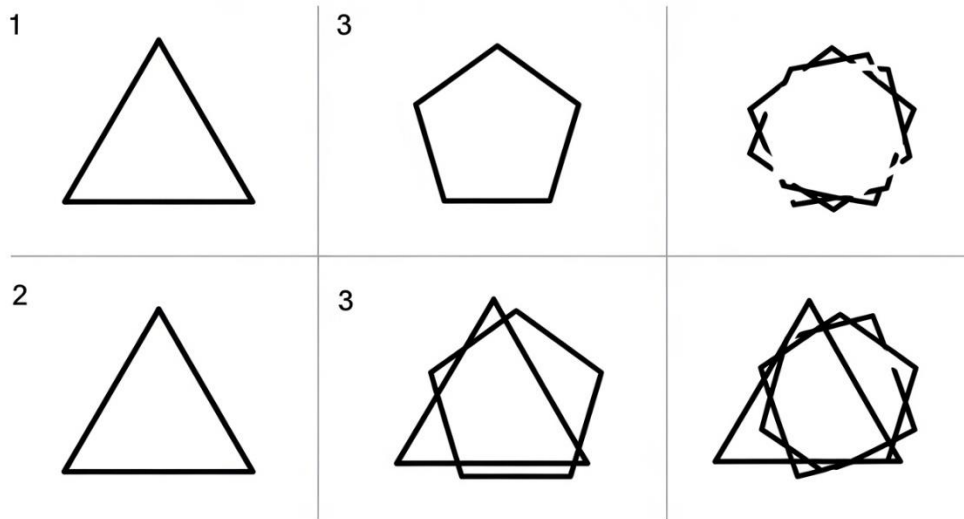
132. Which figure completes the 3×3 grid?

FIGUR PQ-18



- A. pentagon with arrow down
- B. pentagon with arrow left
- C. pentagon with arrow up
- D. pentagon with no arrow

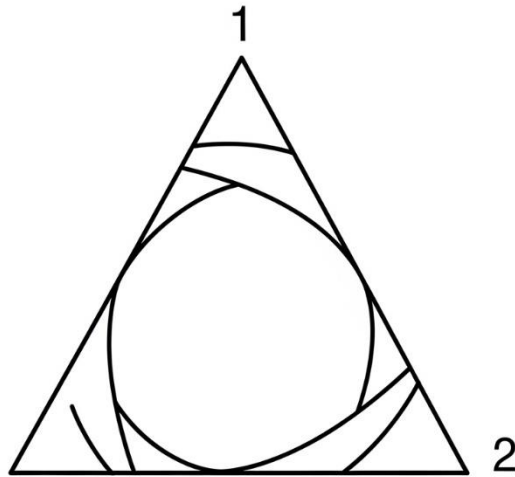
133. Which figure completes the 3×3 grid?



- A. star alone

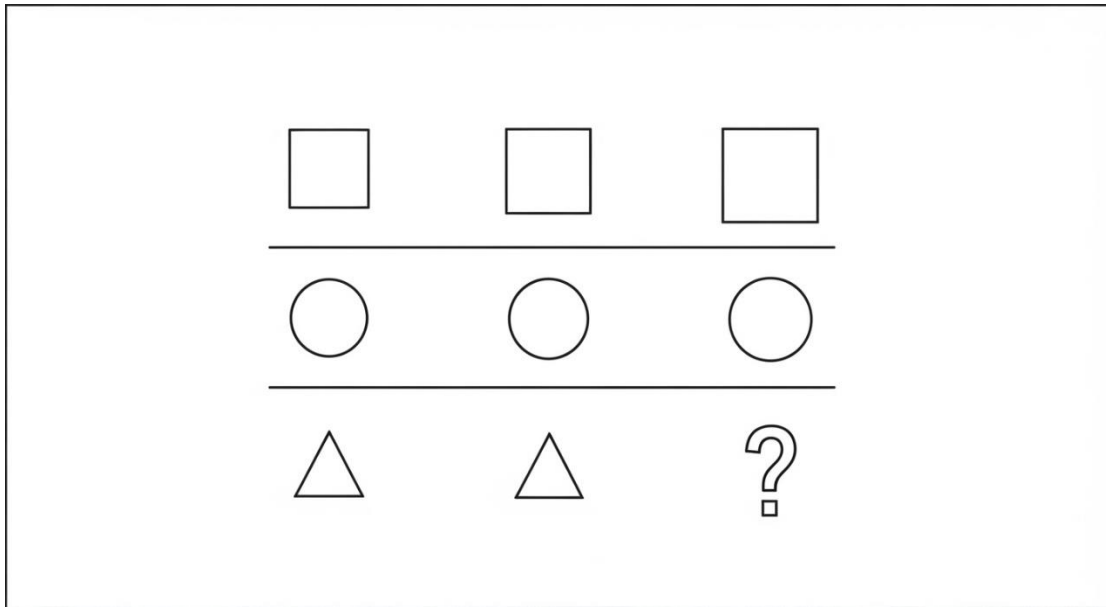
- B. star overlapping hexagon
- C. hexagon alone
- D. two stars

134. Which figure completes the 3×3 grid?



- A. 1 triangle
- B. 2 nested triangles
- C. 4 nested triangles
- D. 3 nested triangles

135. Which figure completes the 3×3 grid?



- A. small triangle
- B. medium triangle
- C. large triangle
- D. extra-large triangle

136. Which figure completes the 3×3 grid?

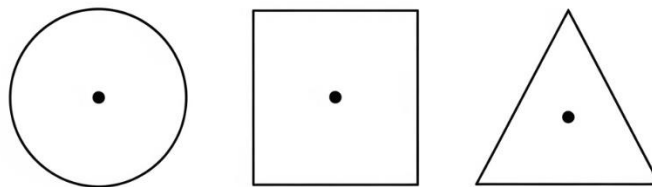


- A. circle+circle

- B. square+triangle
- C. triangle+triangle
- D. square+circle

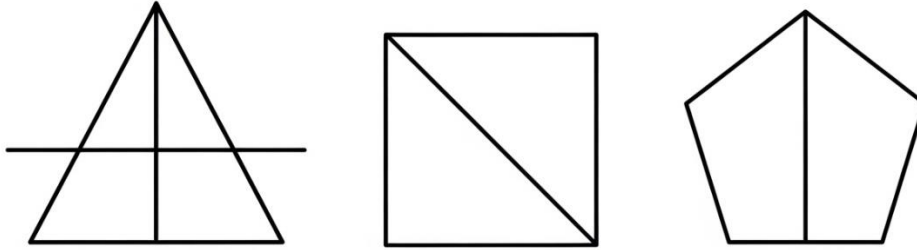
Section H — Figure Classification (Questions 137–158)

137. Which figure belongs with the three given?



- A. heart with a small black dot at its centre
- B. circle with a small black dot at its corner
- C. pentagon with a small black dot at its centre
- D. circle with no dot

138. Which figure belongs with the three given?



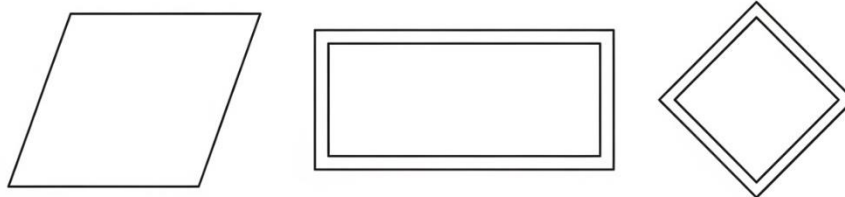
A. hexagon with a single diagonal line

B. circle with a curved line

C. triangle with three internal lines

D. square with no lines

139. Which figure belongs with the three given?



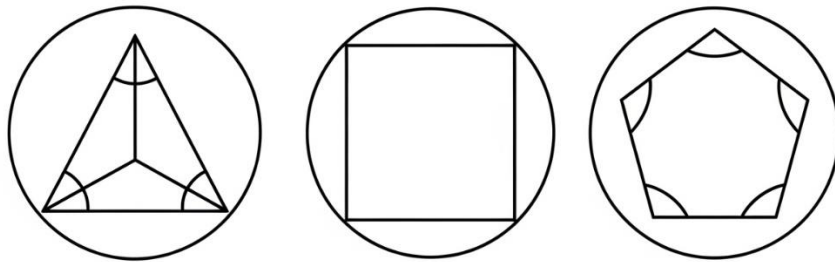
A. triangle

B. pentagon

C. trapezoid

D. square

140. Which figure belongs with the three given?



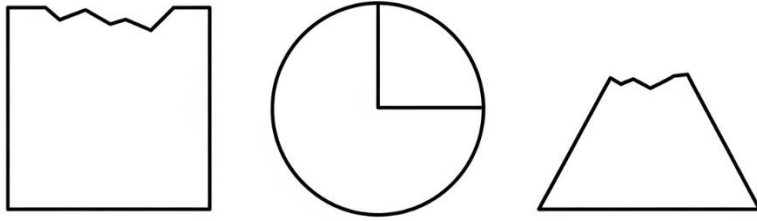
A. triangle outside a circle

B. hexagon inscribed in a circle

C. two circles touching

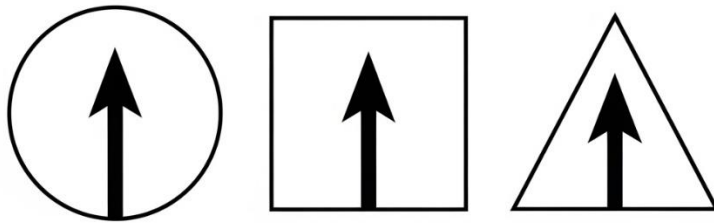
D. circle inscribed in a square

141. Which figure belongs with the three given?



- A. pentagon with one side missing
- B. complete pentagon with no gaps
- C. square with all four sides intact
- D. circle with complete outline

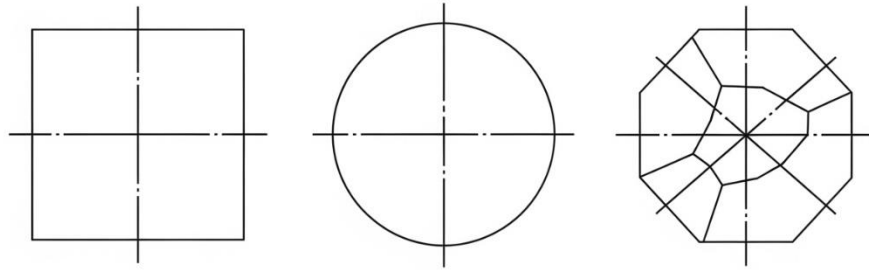
142. Which figure belongs with the three given?



- A. circle with arrow pointing downward
- B. square with arrow pointing right

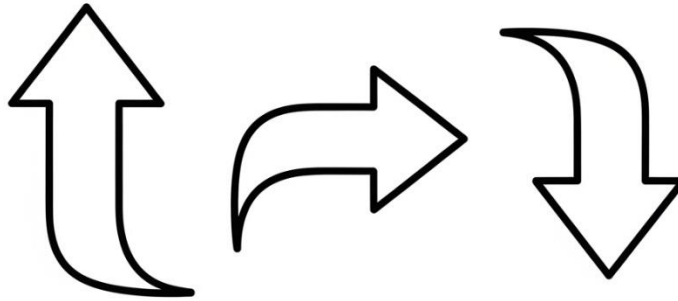
- C. pentagon containing an upward-pointing arrow
- D. triangle with no arrow inside

143. Which figure belongs with the three given?



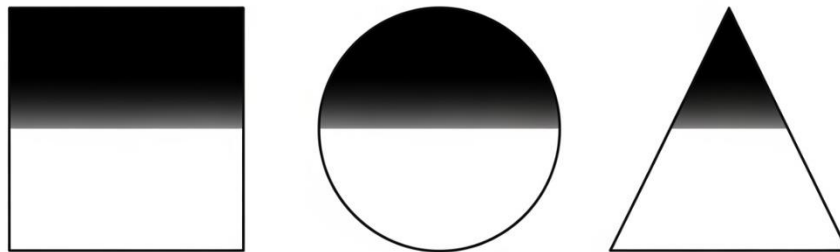
- A. triangle divided into 4 unequal parts
- B. square split only in half
- C. circle with one diameter only
- D. rectangle divided into four equal quadrants

144. Which figure belongs with the three given?



- A. straight arrow with no tail
- B. arrow pointing left with a curved tail
- C. arrow with no tail
- D. zigzag line

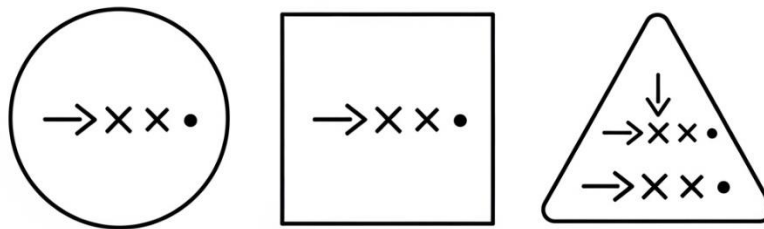
145. Which figure belongs with the three given?



- A. pentagon with the top half shaded black

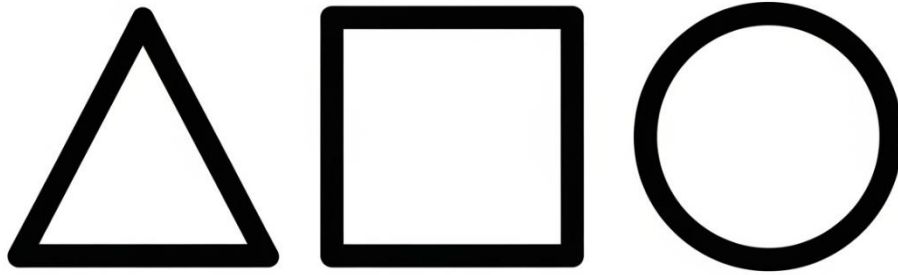
- B. square fully shaded black
- C. circle with the bottom half shaded black
- D. unshaded pentagon

146. Which figure belongs with the three given?



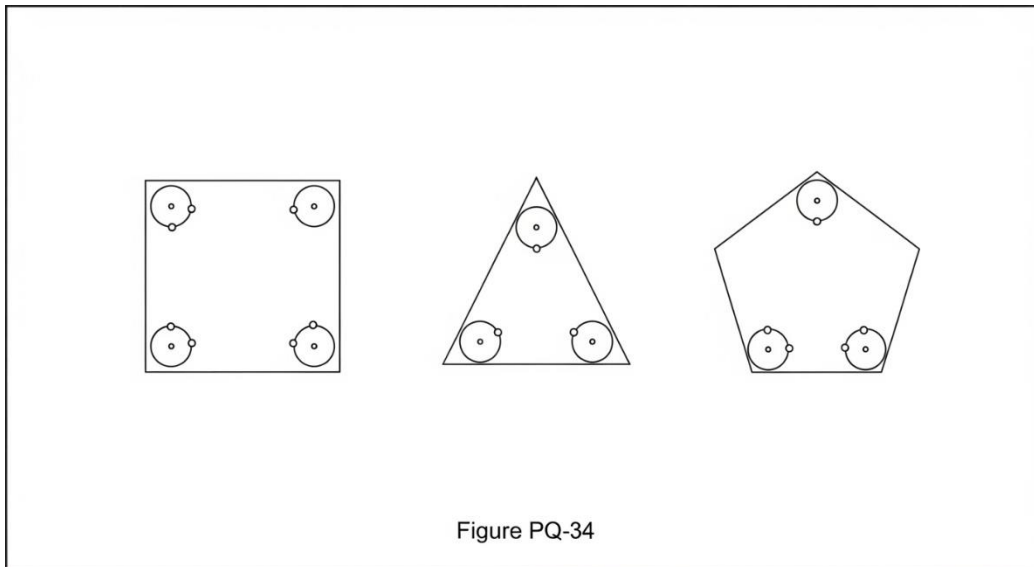
- A. circle with one symbol only
- B. square with two symbols
- C. triangle with no symbols
- D. pentagon containing three small symbols (arrow, cross, dot)

147. Which figure belongs with the three given?



- A. triangle with a thin outline
- B. circle with no outline
- C. pentagon with a thick bold outline
- D. dotted square

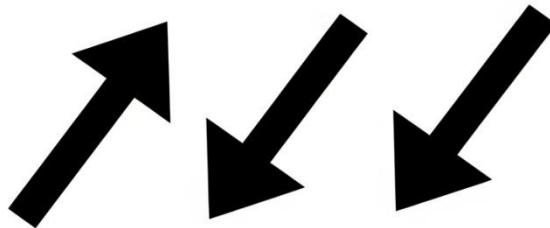
148. Which figure belongs with the three given?



- A. square containing 1 small circle

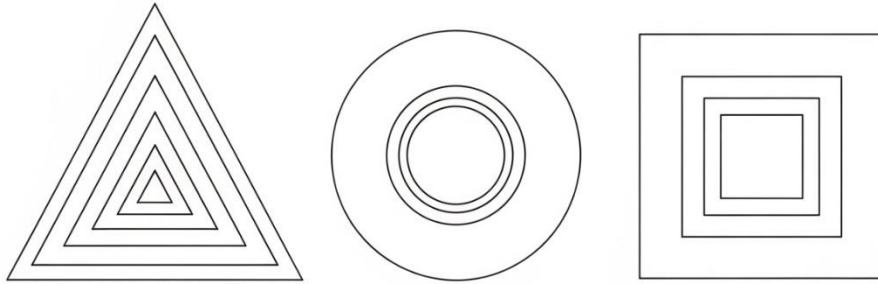
- B. hexagon containing exactly 2 small circles
- C. triangle containing 3 small circles
- D. pentagon containing no circles

149. Which figure belongs with the three given?



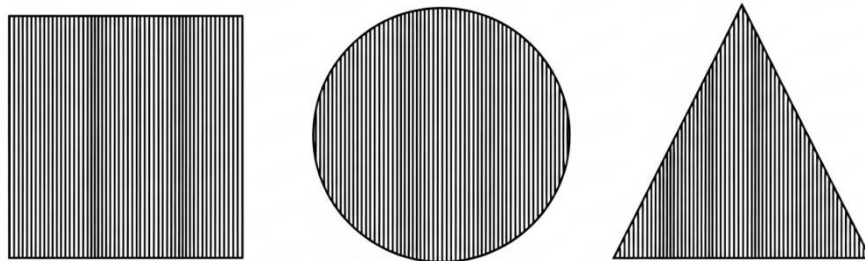
- A. arrow pointing diagonally up-left
- B. arrow pointing straight up
- C. arrow pointing straight right
- D. circular arrow

150. Which figure belongs with the three given?



- A. plain triangle with no inner shape
- B. circle and square together
- C. star with no inner shape
- D. pentagon with a smaller concentric pentagon drawn inside

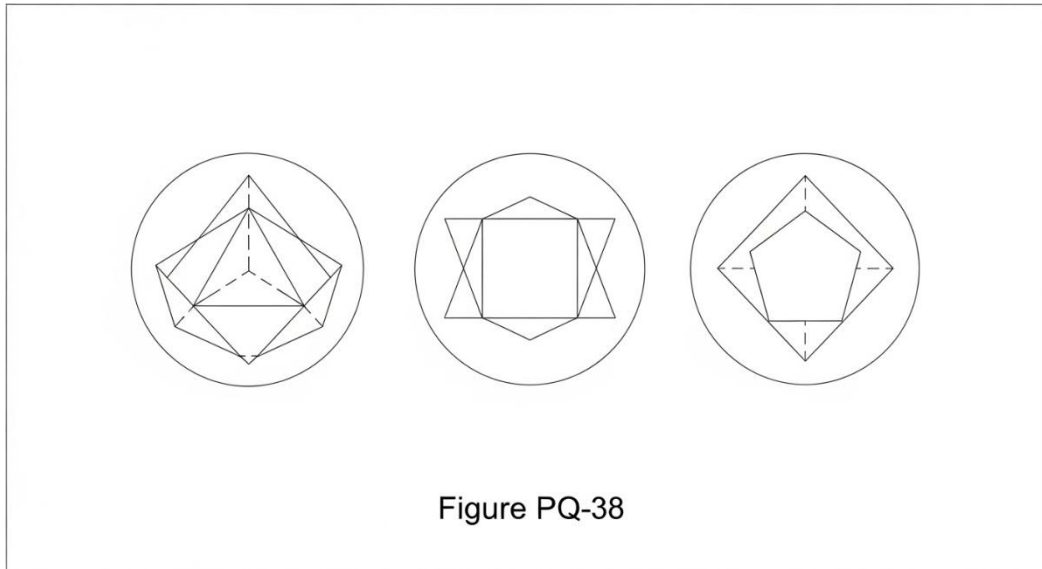
151. Which figure belongs with the three given?



- A. dotted square

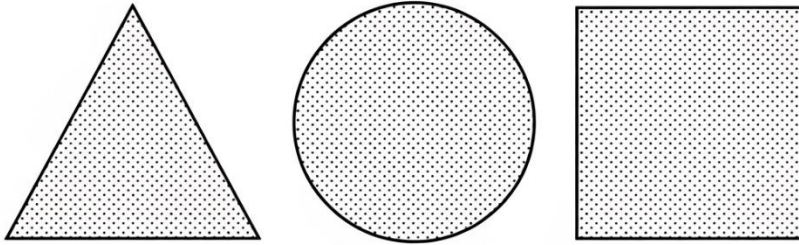
- B. pentagon filled with vertical stripes
- C. plain circle
- D. square filled with horizontal stripes

152. Which figure belongs with the three given?



- A. circle drawn inside a triangle
- B. triangle drawn outside a circle
- C. small hexagon drawn inside a circle without touching the edge
- D. polygon touching the circle's edge

153. Which figure belongs with the three given?



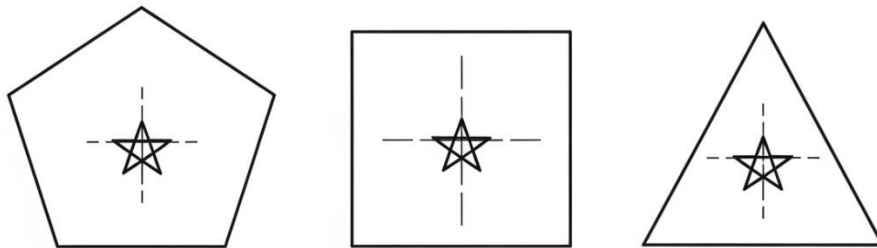
A. pentagon filled with a dotted pattern

B. striped triangle

C. plain circle

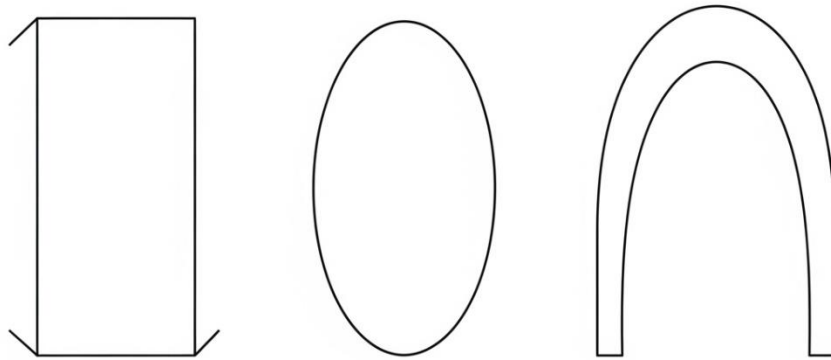
D. solid black square

154. Which figure belongs with the three given?



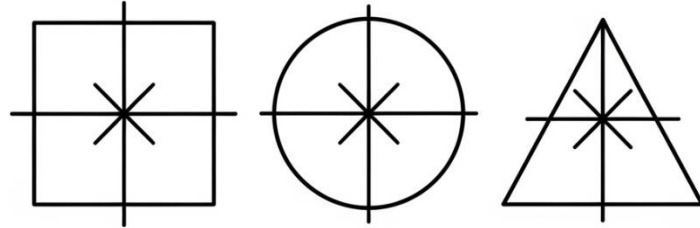
- A. plain pentagon with nothing inside
- B. star alone with no outer shape
- C. circle containing a small heart
- D. hexagon containing a small star inside

155. Which figure belongs with the three given?



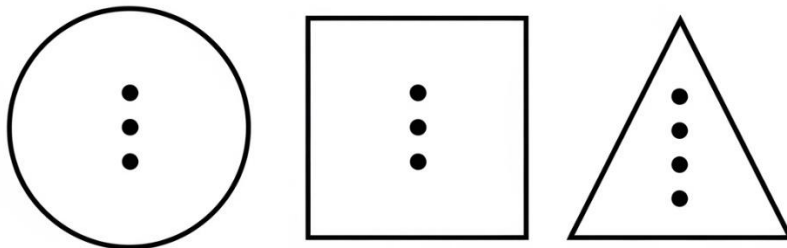
- A. circle (equal width and height)
- B. ellipse oriented vertically (taller than wide)
- C. square (equal sides)
- D. shape that is wider than tall

156. Which figure belongs with the three given?



- A. pentagon with an X mark drawn at its centre
- B. square with a cross (+) mark at its centre
- C. circle with an O mark at its centre
- D. star with no centre marks

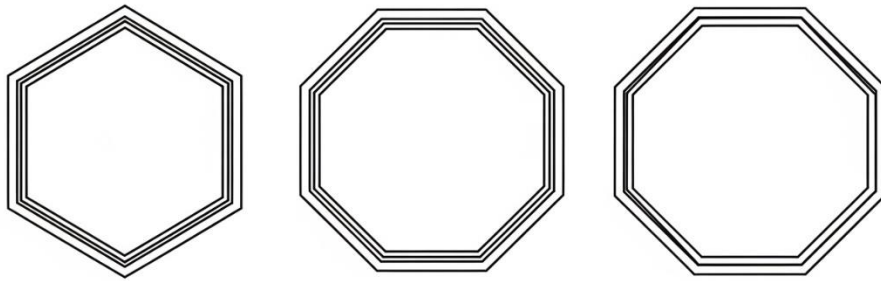
157. Which figure belongs with the three given?



- A. circle containing two dots

- B. square containing a horizontal line of dots
- C. triangle containing one dot
- D. pentagon containing three dots arranged in a vertical line

158. Which figure belongs with the three given?

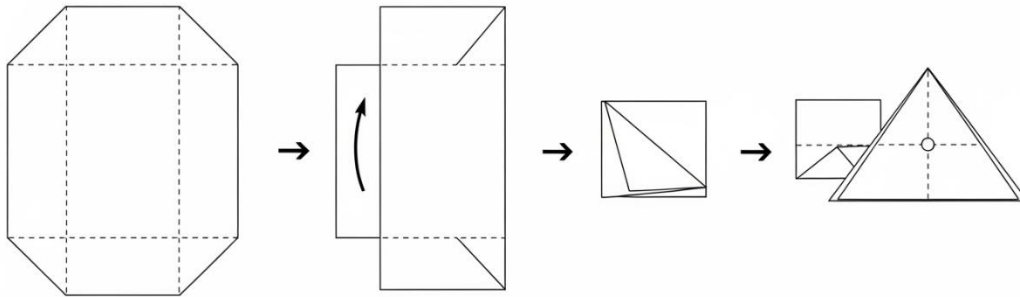


- A. triangle with single-line outline
- B. circle with single-line outline
- C. pentagon with double-line outline
- D. square with thin outline

Section I — Paper Folding (Questions 159–176)

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

Figure PQ-45



- A. 4 holes
- B. 6 holes
- C. 7 holes
- D. 8 holes arranged symmetrically about the centre

160. A square paper is folded in half along a vertical centre line. A hole is punched through both layers along the top edge of the folded rectangle, near the outer (non-fold) corner. When the paper is unfolded, what does it look like?

- A. One hole at the top-centre
- B. Two holes along the top edge, symmetrically placed on the left and right of the vertical centre
- C. Four holes at the corners
- D. One hole in the top-left only

161. A square paper is folded diagonally from the bottom-left corner to the top-right corner. A hole is punched through both layers near the centre of the resulting triangle, not on the diagonal fold line. When the paper is unfolded, what does it look like?

- A. One hole near the centre

- B. Four holes
- C. Two holes mirrored across the diagonal fold line
- D. Three holes

162. A square paper is folded in half along a vertical centre line. Two holes are punched through both layers — one in the upper-left corner and one in the lower-left corner of the folded rectangle. When the paper is unfolded, what does it look like?

- 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

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

- A. One hole in the lower-left only
- B. Two holes — one in the upper-left and one in the lower-left
- C. Four holes
- D. Two holes on the bottom edge

164. A square paper is folded in half along a vertical centre line, then in half along a horizontal centre line. Two holes are punched through all four layers — one in the upper-left corner (the outer corner away from both folds) and one along the right edge of the small folded square (on the vertical fold, at its midpoint). When the paper is unfolded, what does it look like?

- A. 2 holes
- B. 6 holes
- C. 8 holes

D. 6 holes — four at the corners of the unfolded square and two at the top-centre and bottom-centre edge midpoints

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

A. Two holes

B. Four holes

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

D. Three holes

166. A square paper is folded diagonally from the top-left corner to the bottom-right corner. A hole is punched directly on the fold line, at the centre of the diagonal. 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

167. A square paper is folded in half along a horizontal centre line. A hole is punched through both layers along the right edge of the folded rectangle, at the vertical midpoint of that edge. When the paper is unfolded, what does it look like?

A. One hole on the right edge

B. Two holes on the right edge, symmetrically placed above and below the horizontal centre

C. Four holes

D. Two holes on the bottom edge

168. A square paper is folded in half along a vertical centre line, then folded in half again along a vertical line parallel to the first fold (creating a quarter-width strip with 4 layers). A hole is punched through all layers in the upper corner of the resulting strip. When the paper is unfolded, what does it look like?

- A. 1 hole
- B. 2 holes
- C. 3 holes
- D. 4 holes spaced evenly along the top edge of the unfolded square

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

- A. Two holes stacked vertically along the vertical centre line, one above and one below the horizontal centre
- B. One hole at the centre
- C. Four holes
- D. Two holes side by side horizontally

170. A square paper is folded diagonally from the bottom-right corner to the top-left corner. A hole is punched through both layers near the centre of the resulting triangle, not on the fold line. When the paper is unfolded, what does it look like?

- A. One hole at the centre
- B. Four holes
- C. Two holes mirrored across the diagonal fold line
- D. Three holes

171. 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 exactly at the inner corner (where the two fold lines meet) of the small folded square. When the paper is unfolded, what does it look like?

- A. One hole at the centre of the unfolded square
- B. Four holes at the corners
- C. Two holes
- D. Eight holes

172. 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, off-centre and away from the fold line. When the paper is unfolded, what does it look like?

- A. One hole on the bottom edge only
- B. Two holes on the bottom edge, symmetrically placed left and right of the vertical centre
- C. Four holes
- D. Three holes

173. A square paper is folded in half along a vertical centre line, then folded in half again along the same direction (creating a quarter-width strip with 4 layers), then folded in half along a horizontal centre line. A hole is punched through all eight layers in the upper corner of the resulting small rectangle, 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 in two horizontal rows of 4 across the unfolded square

174. A square paper is folded in half along a horizontal centre line. A hole is punched along the bottom edge of the folded rectangle, exactly at the centre of that edge. When the paper is unfolded, what does it look like?

- A. One hole
- B. Two holes side by side along the bottom edge

- C. Two holes — one at the top-centre and one at the bottom-centre of the unfolded square
- D. Four holes

175. 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 along the top edge of the small folded square (on the horizontal fold), off-centre to the left (away from the vertical fold). When the paper is unfolded, what does it look like?

- A. One hole
- B. Two holes on the horizontal centre line of the unfolded square, symmetrically placed left and right
- C. Four holes
- D. Three holes

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

- A. 2 holes
- B. 3 holes
- C. 4 holes mirrored in pairs across the diagonal fold line
- D. 6 holes

Practice Exam 4: Answer Key and Full Explanations

Section A — Verbal Analogies (Q1–24)

- 1. A.** Young-to-mature animal — A cub is a young bear, just as a sapling is a young tree. The pair links an early life stage to its mature form. Forest, mother, and young are bear-associated but not the species the cub will grow into.
- 2. C.** Antonym pair — A famine is a lack of food and a feast is an excess of food, just as a drought is a lack of water and a flood is an excess of water. The pair links scarcity to abundance. Food, hunger, and plate do not capture the opposing-condition relationship.
- 3. B.** Tool of profession — A gavel is a judge's tool, just as a scalpel is a surgeon's tool. The pair links a profession to its defining instrument. Lawyer and police work in courts but don't use the gavel; court is the venue, not the tool's user.
- 4. D.** Protective casing-to-emerging young — An eggshell protects a chick before it hatches, just as a cocoon protects a butterfly before it emerges. The pair links a casing to the young life it shelters. Bird, mother, and nest are egg-adjacent but not what emerges from the shell.
- 5. A.** Section of written work — A paragraph is a section of an essay, just as a stanza is a section of a poem. The pair connects a structural component to its complete work. Word and letter are smaller text units; book is a larger format.
- 6. C.** Antonym pair — Inhale and exhale are opposites (breathing in versus out), just as ascend and descend are opposites (going up versus down). The pair links paired opposing actions. Breath, air, and lung are inhalation-related but not the opposing verb.
- 7. D.** Defensive feature — A turtle defends itself with its shell, just as a porcupine defends itself with its quills. The pair connects an animal to its primary natural defence. Water, slow, and green describe turtles but are not defensive features.
- 8. B.** Instructions used by professional — A recipe guides a chef, just as a blueprint guides an architect. The pair links a set of instructions to its primary user. Food is the chef's output, kitchen the workspace, and ingredients the inputs — none are the guide itself.
- 9. C.** Subject of specialty — A botanist specializes in plants, just as a veterinarian specializes in animals. The pair links a professional to their field of study. Doctor and forest are related but not the subject; garden is too narrow.
- 10. A.** Tool-to-information shown — A compass shows directions, just as a calendar shows dates. The pair links a tool to the information it displays. North is one direction, needle is a part, and travel is a use — none are what the compass displays as a whole.

11. D. Process of emergence — A seed sprouts to begin growth, just as an egg hatches to begin life. The pair links a starting form to the process that activates new growth. Ground, flower, and water are environmental but not the emergence process itself.

12. B. Creator-to-creation — A choreographer creates dance, just as a cartographer creates maps. The pair links a creator to their primary work. Music, stage, and performer are dance-adjacent but not the creation itself.

13. A. Main structural support — A stem is the main support of a flower, just as a bough is a main branch of a tree. The pair links a structural element to its plant. Leaf, soil, and branch are flower-related but not the central supporting structure.

14. D. Progression in skill — An apprentice progresses to become a master, just as a novice progresses to become an expert. The pair links a learner stage to the experienced stage. Shop and trade are workplaces; teacher is a different role.

15. B. Measurement instrument — A barometer measures atmospheric pressure, just as a speedometer measures speed. The pair links an instrument to the quantity it measures. Scale measures weight, clock measures time, and gauge is too generic.

16. C. Medium for artist — A canvas is what a painter works on, just as marble is what a sculptor works on. The pair connects a creator with their primary material. Paint and brush are tools; gallery is where finished work is displayed.

17. D. Device that applies heat — An oven uses heat to bake bread, just as an incubator uses warmth to hatch an egg. The pair links a heating device to what it produces or develops. Heat and kitchen are oven-related but not the product; food is too general.

18. A. Direction-of-movement tool — A parachute is used to descend safely, just as a ladder is used to climb upward. The pair links a tool to its primary direction. Jump and land describe parachute use but not the directional opposite of "climb"; fly contradicts descent.

19. B. Synonym pair — Humble and modest are synonyms (meaning unassuming), just as courageous and fearless are synonyms (meaning brave). The pair links words with equivalent meaning. Proud is the opposite; shy and quiet describe quietness, not humility.

20. C. Absorber-to-absorbed — A solar panel absorbs light, just as a sponge absorbs moisture. The pair connects a material to what it takes in. Dark is the absence of light, sun is the source, and shadow is its absence — none are absorbers.

21. B. Antonym pair — Silent and talkative are opposites (no speech versus lots of speech), just as lethargic and energetic are opposites (no energy versus lots of energy). Friendly, loud, and busy do not contrast with talkative the way silent does.

22. D. Smaller part of main structure — A branch is a smaller limb attached to a tree, just as a tributary is a smaller stream that flows into a river. The pair connects a feeder element to its main body. Leaf is a part of a branch; forest is a collection; wood is the material.

23. C. Tool processes material — A kiln processes clay (by hardening it through firing), just as a chisel processes wood (by carving it). The pair links a tool to the material it transforms. Fire and heat are kiln's mechanism; potter is the user, not the material.

24. A. Transition time-to-period — Dusk is the transition into evening, just as dawn is the transition into morning. The pair links a transitional time to the period it precedes. Dark and night follow evening; sunset is a similar event to dusk, not what dusk precedes.

Section B — Sentence Completion (Q25–44)

25. D. Major historical impact — Monumental describes a discovery so significant it reshapes historical understanding. Trivial, small, and brief contradict the world-changing scale described.

26. B. Long-term commitment — Dedicated describes a scholar who works for decades on a difficult project. Lazy, confused, and forgetful contradict the sustained focus needed to translate ancient manuscripts.

27. A. Severe weather — Ferocious describes storm winds so harsh that continuing duties through the night is a challenge. Gentle, calm, and mild contradict the storm's intensity.

28. C. Deep absolute silence — Profound describes a silence so complete that even a distant clock can be heard. Noisy and crowded contradict the silence; usual is too weak.

29. D. Smooth effortless skill — Effortless describes a routine that appears so easy after months of training that it leaves judges speechless. Clumsy, uncertain, and nervous contradict graceful gymnastic performance.

30. A. Brave conquest — Courageous describes the bravery needed to climb a treacherous peak. Lazy, simple, and brief contradict the difficulty and recognition involved.

31. B. Highly clever — Ingenious describes an idea so inventive it revolutionises a scientific field. Ordinary, simple, and plain contradict revolutionary thinking.

32. C. Playfully creative — Whimsical describes a dessert that combines unexpected flavours in surprising and delightful ways. Plain, boring, and ordinary contradict creative culinary innovation.

33. D. Careful thorough attention — Painstaking describes the meticulous, no-detail-missed attention a detective applies at a crime scene. Casual, careless, and brief contradict thorough investigation.

34. A. Exceptional natural gift — Prodigious describes a remarkable, often youthful talent that is obvious from the start. Small, limited, and weak contradict exceptional ability.

35. C. Otherworldly beauty — Surreal describes a view so unusual and dreamlike that the colours appear nowhere else. Ordinary, plain, and boring contradict a view that astronauts describe with awe.

36. B. Misleading appearance — Deceptive describes a package whose visible size doesn't reflect its true weight. Tiny, small, and fragile do not capture the contrast between appearance and reality.

37. A. Without limit — Boundless describes generosity that extends beyond any normal measure. Limited, small, and cautious contradict extreme generosity in a crisis.

38. D. Engagingly attractive — Captivating describes an exhibit so compelling it draws visitors from far away. Boring, dim, and unremarkable contradict an exhibit that attracts cross-country travel.

39. B. Beyond ordinary — Extraordinary describes patience so unusual that it transforms even struggling students' confidence. Weak, brief, and uneven contradict the consistent dedication required.

40. C. Confusingly complex — Perplexing describes a case where clues only deepen the mystery. Obvious, simple, and clear contradict a confusing investigation.

41. A. Acting without self-interest — Selfless describes bravery shown in rescuing others while risking one's own safety. Cautious, fearful, and slow contradict the heroic action required.

42. D. Skilled artistic command — Masterful describes the expert use of colour that transforms an ordinary scene into a work of art. Ordinary, plain, and dull contradict masterpiece-level skill.

43. C. Complete agreement — Unanimous describes a decision agreed to by all committee members. Divided, forced, and quick contradict full agreement after lengthy debate.

44. B. Diplomatically skilled — Tactful describes a careful, sensitive approach that prevents conflict during negotiation. Aggressive, blunt, and harsh contradict the soft skill required of a successful diplomat.

Section C — Verbal Classification (Q45–60)

45. C. Precious gemstones — Diamond belongs with ruby, sapphire, and emerald as precious gemstones. Silver and gold are metals; necklace is jewellery, not a stone.

46. A. Planets — Uranus belongs with Saturn, Jupiter, and Neptune as planets in our solar system. Moon, star, and comet are different celestial categories.

47. B. Grains — Oats belongs with wheat, barley, and rye as cereal grains. Apple is a fruit, potato a tuber, and spinach a leafy vegetable.

- 48. D.** Famous painters — Rembrandt belongs with Picasso, Monet, and Van Gogh as renowned painters. Mozart was a composer, Shakespeare a playwright, and Newton a scientist.
- 49. C.** Brass instruments — French horn belongs with trombone, trumpet, and tuba as brass instruments. Violin is a string instrument, flute a woodwind, and drum a percussion instrument.
- 50. A.** Oceans — Arctic belongs with Pacific, Atlantic, and Indian as one of the world's oceans. Mediterranean is a sea; river and lake are smaller water bodies.
- 51. D.** Polygons — Trapezoid belongs with rectangle, triangle, and hexagon as polygons (closed shapes with straight sides). Circle and ellipse have curved sides; sphere is three-dimensional.
- 52. B.** Cloud types — Nimbus belongs with cumulus, stratus, and cirrus as types of clouds in meteorology. Rain is precipitation, weather is the broader category, and fog is ground-level moisture.
- 53. A.** Culinary herbs — Oregano belongs with rosemary, thyme, and basil as common culinary herbs. Carrot is a vegetable, pepper a spice/vegetable, and salt a mineral.
- 54. C.** Small songbirds — Wren belongs with robin, sparrow, and finch as small songbirds. Eagle is a raptor, ostrich is flightless and large, and penguin is aquatic and flightless.
- 55. D.** Metals — Nickel belongs with iron, copper, and zinc as metals. Wood, plastic, and glass are non-metallic materials.
- 56. B.** Days of the week — Wednesday belongs with Saturday, Tuesday, and Friday as days of the week. Month is a unit of time, weekend is a portion of the week, and holiday is a category of day.
- 57. A.** Romance languages — French belongs with Spanish, Italian, and Portuguese as Romance languages derived from Latin. German is Germanic, Russian is Slavic, and Chinese is Sino-Tibetan.
- 58. C.** Parts of a flower — Pistil belongs with stamen, petal, and sepal as parts of a flower. Leaf, root, and stem are parts of the broader plant, not specifically of the flower itself.
- 59. B.** Inner planets — Mars belongs with Mercury, Venus, and Earth as the rocky inner planets of our solar system. Saturn is a gas giant; moon and sun are not planets.
- 60. D.** Woodwind instruments — Oboe belongs with saxophone, clarinet, and flute as woodwind instruments. Trumpet is a brass instrument, drum is percussion, and piano is keyboard.

Section D — Number Analogies (Q61–78)

- 61. C.** Rule: square the first number — $3^2=9$, $5^2=25$, so $7^2=49$. Each second number is the first number multiplied by itself.
- 62. A.** Rule: divide by 5 — $40\div 5=8$, $35\div 5=7$, so $50\div 5=10$. Each second number is one-fifth of the first.
- 63. D.** Rule: multiply by 2, add 2 — $6\times 2+2=14$, $8\times 2+2=18$, so $10\times 2+2=22$. The same two-step operation applies to all pairs.
- 64. B.** Rule: multiply by 3 — $12\times 3=36$, $15\times 3=45$, so $18\times 3=54$. Each second number is triple the first.
- 65. A.** Rule: cube the first number — $2^3=8$, $3^3=27$, so $4^3=64$. Each second number is the first number multiplied by itself three times.
- 66. D.** Rule: divide by 8 — $88\div 8=11$, $72\div 8=9$, so $96\div 8=12$. Each second number is one-eighth of the first.
- 67. B.** Rule: multiply by 3, add 1 — $5\times 3+1=16$, $7\times 3+1=22$, so $9\times 3+1=28$. The same two-step operation applies to all pairs.
- 68. C.** Rule: divide by 25 — $100\div 25=4$, $75\div 25=3$, so $50\div 25=2$. Each second number is one twenty-fifth of the first.
- 69. A.** Rule: square the first number and add 1 — $3^2+1=10$, $5^2+1=26$, so $7^2+1=50$. The same square-plus-one operation applies to all pairs.
- 70. D.** Rule: square root — $\sqrt{144}=12$, $\sqrt{121}=11$, so $\sqrt{100}=10$. Each second number is the square root of the first.
- 71. C.** Rule: square the first number and add 1 — $7^2+1=50$, $8^2+1=65$, so $9^2+1=82$. The same square-plus-one operation applies to all pairs.
- 72. B.** Rule: cube the first number — $4^3=64$, $5^3=125$, so $6^3=216$. Each second number is the first cubed.
- 73. D.** Rule: divide by 6 — $24\div 6=4$, $42\div 6=7$, so $54\div 6=9$. Each second number is one-sixth of the first.
- 74. A.** Rule: multiply by 3 — $10\times 3=30$, $12\times 3=36$, so $15\times 3=45$. Each second number is triple the first.
- 75. B.** Rule: square root — $\sqrt{49}=7$, $\sqrt{36}=6$, so $\sqrt{25}=5$. Each second number is the square root of the first.

76. C. Rule: square the first number — $6^2=36$, $8^2=64$, so $9^2=81$. Each second number is the first squared.

77. A. Rule: divide by 3 — $33\div 3=11$, $45\div 3=15$, so $27\div 3=9$. Each second number is one-third of the first.

78. D. Rule: multiply by 3, add 2 — $11\times 3+2=35$, $15\times 3+2=47$, so $20\times 3+2=62$. The same two-step operation applies to all pairs.

Section E — Number Series (Q79–96)

79. B. Rule: differences increase by 1 — Add 5, 6, 7, 8, then 9. From 32, add 9 to get 41. The gaps between terms grow by one each step.

80. C. Rule: double each term — Sequence multiplies by 2 (2, 4, 8, 16, 32), so the next term is $32\times 2=64$. A geometric progression with constant ratio 2.

81. A. Rule: multiply by 2, add 2 — Each term is the previous doubled plus 2 ($1\times 2+2=4$, $4\times 2+2=10$, $10\times 2+2=22$), so $22\times 2+2=46$. The two-step operation compounds quickly.

82. D. Rule: descending squares — Sequence is 9^2 , 8^2 , 7^2 , 6^2 , 5^2 , so the next term is $4^2=16$. Each term is a smaller integer squared.

83. B. Rule: differences increase by 2 — Add 3, 5, 7, 9, then 11. From 26, add 11 to get 37. The gaps between terms are consecutive odd numbers.

84. A. Rule: differences increase by 2 — Add 3, 5, 7, 9, then 11. From 29, add 11 to get 40. The gaps between terms grow by two each step.

85. C. Rule: triple each term — Sequence multiplies by 3 (3, 9, 27, 81, 243), so the next term is $243\times 3=729$. A geometric progression with ratio 3.

86. D. Rule: double each term — Sequence multiplies by 2 (11, 22, 44, 88, 176), so the next term is $176\times 2=352$. A geometric progression with constant ratio 2.

87. A. Rule: multiply by 2, add 1 — Each term doubles and adds 1 ($1\times 2+1=3$, $3\times 2+1=7$, $7\times 2+1=15$, $15\times 2+1=31$), so $31\times 2+1=63$. The growth compounds rapidly.

88. B. Rule: divide by 2 — Sequence halves (100, 50, 25, 12.5), so the next term is $12.5\div 2=6.25$. A geometric decrease that produces decimals.

89. D. Rule: differences increase by 1 — Add 1, 2, 3, 4, 5, then 6. From 20, add 6 to get 26. The gaps grow steadily one at a time.

90. C. Rule: divide by 2 — Sequence halves (200, 100, 50, 25), so the next term is $25\div 2=12.5$. A geometric decrease that produces a decimal.

91. B. Rule: consecutive prime numbers — The sequence lists the primes 2, 3, 5, 7, 11, 13, so the next prime is 17. Each term is the next prime number in order.

92. A. Rule: Fibonacci-like sum — Each term equals the sum of the two previous ($11+18=29$; $18+29=47$). The pattern compounds because each new term grows from the two before it.

93. D. Rule: perfect squares — Sequence is $1^2, 2^2, 3^2, 4^2, 5^2, 6^2$, so the next term is $7^2=49$. Each term is a small integer multiplied by itself.

94. C. Rule: divide by 2 — Sequence halves (64, 32, 16, 8, 4), so the next term is $4\div 2=2$. A geometric decrease.

95. B. Rule: differences increase by 2 — Add 3, 5, 7, 9, 11, then 13. From 39, add 13 to get 52. The gaps between terms grow by two each step.

96. C. Rule: double each term — Sequence multiplies by 2 (12, 24, 48, 96), so the next term is $96\times 2=192$. A geometric progression with ratio 2.

Section F — Number Puzzles (Q97–114)

97. D. Two-step substitution — From $\diamond\times 8=72$, $\diamond=9$. Then $\diamond+11=9+11=20$. Solve for the symbol first, then complete the second operation.

98. B. Order of operations — Multiply before adding: $3\times 6=18$, then $18+4=22$. Multiplication takes precedence over addition.

99. C. Substitute with exponent — Replace $\triangle=5$ and $\circ=8$. Then $\triangle^2+\circ=25+8=33$. Exponents apply before addition.

100. A. Two-step — Right side equals $9+3=12$. Then $144\div ?=12$ means $?=144\div 12=12$. Reverse the division to find the unknown divisor.

101. D. Two-step substitution — From $\star+14=25$, $\star=11$. Then $\star\times 4=11\times 4=44$. Solve for the symbol first, then complete the multiplication.

102. B. Multi-step — From $5\times 5-?=18$, first $5\times 5=25$. Then $25-?=18$ means $?=25-18=7$. Combine knowns first, then subtract.

103. A. Substitute with exponent — Replace $\diamond=12$. Then $\diamond^2-100=144-100=44$. Squaring applies before subtraction.

104. C. Add then subtract — From $7+14+?=40$, first $7+14=21$. Then $21+?=40$ means $?=40-21=19$. Combine knowns first, then solve.

105. D. Two-step substitution — From $\triangle\times 6=54$, $\triangle=9$. Then $\triangle+7=9+7=16$. Solve for the symbol first, then complete the addition.

106. A. Multi-step — From $8 \times ? - 4 = 60$, add 4 to get $8 \times ? = 64$. Then $? = 64 \div 8 = 8$. Reverse the operations in order.

107. B. Two-step — Right side equals $4 + 5 = 9$. Then $90 \div ? = 9$ means $? = 90 \div 9 = 10$. Reverse the division to find the unknown.

108. C. Two-step substitution — From $\star \times 5 = 65$, $\star = 13$. Then $\star^2 = 13 \times 13 = 169$. Solve for the symbol first, then square it.

109. A. Multi-step — From $6 \times 7 - ? = 30$, first $6 \times 7 = 42$. Then $42 - ? = 30$ means $? = 42 - 30 = 12$. Combine knowns first, then subtract.

110. D. Two-step substitution — From $\diamond + \circ = 20$ and $\diamond = 12$, $\circ = 20 - 12 = 8$. Then $\circ \times 5 = 8 \times 5 = 40$. Solve for the unknown symbol first, then multiply.

111. C. Two-step — Right side equals $4 \times 9 = 36$. Then $? + 17 = 36$ means $? = 36 - 17 = 19$. Subtract to isolate the missing value.

112. A. Multi-factor multiplication — From $2 \times 5 \times ? = 60$, first $2 \times 5 = 10$. Then $10 \times ? = 60$ means $? = 60 \div 10 = 6$. Combine known factors first, then solve.

113. B. Two-step substitution — From $\Delta^2 = 81$, $\Delta = 9$ (since $9 \times 9 = 81$). Then $\Delta + 5 = 9 + 5 = 14$. Take the square root first, then add.

114. C. Two-step — Right side equals $25 \div 5 = 5$. Then $100 \div ? = 5$ means $? = 100 \div 5 = 20$. Reverse the division to find the unknown.

Section G — Figure Matrices (Q115–136)

115. B. Rule: stripes increase by 1 per cell — Each row goes $0 \rightarrow 1 \rightarrow 2$ horizontal stripes. The bottom row's triangles must end with 2 horizontal stripes to match.

116. D. Rule: 90° clockwise rotation per cell — Bottom row goes arrow down \rightarrow arrow left \rightarrow ?. Continuing the rotation gives arrow up.

117. A. Rule: shapes cycle positions across rows — Row 3 follows the cycling pattern. After square then triangle, the next shape in the cycle is circle.

118. C. Rule: shading progresses empty \rightarrow half \rightarrow full — Bottom row's triangles must end with the fully shaded triangle to match the rows above.

119. D. Rule: +1 dot per cell — Each row increases the dot count by 1. Bottom row goes $3 \rightarrow 4 \rightarrow 5$ dots.

120. A. Rule: $0 \rightarrow 1 \rightarrow 2$ internal lines per cell — Row 3 must end with two internal lines forming an X-like pattern, matching the line-count progression of the rows above.

- 121. B.** Rule: count increases $1 \rightarrow 2 \rightarrow 3$ — Bottom row goes 1 triangle \rightarrow 2 triangles \rightarrow 3 triangles, matching the count progression of the rows above.
- 122. C.** Rule: fill progresses outlined \rightarrow striped \rightarrow solid — Bottom row's stars must end with the solid black star to complete the fill progression.
- 123. D.** Rule: rows share outer shape, columns share inner symbol — Row 3 is triangles; column 3 is stars. The intersection is a triangle with a star inside.
- 124. B.** Rule: outline thickness progresses thin \rightarrow medium \rightarrow thick — Bottom row's pentagons go thin \rightarrow ? \rightarrow thick. The missing middle is the medium pentagon.
- 125. A.** Rule: shading progresses empty \rightarrow half-shaded (bottom) \rightarrow fully shaded — Bottom row's hearts must end with the fully shaded heart to complete the progression.
- 126. D.** Rule: dot moves 60° clockwise per cell — Bottom row goes 4 o'clock \rightarrow 6 o'clock \rightarrow ?. Continuing 60° clockwise from 6 o'clock gives 8 o'clock.
- 127. C.** Rule: fill progresses white \rightarrow light grey \rightarrow dark grey — Bottom row's pentagons must end with the dark grey pentagon to complete the colour progression.
- 128. B.** Rule: bold side rotates clockwise around the hexagon — Bottom row goes lower-right side bold \rightarrow bottom side bold \rightarrow ?. Continuing clockwise gives lower-left side bold.
- 129. A.** Rule: size progresses tiny \rightarrow small \rightarrow medium — Bottom row's triangles must end with the medium triangle to complete the size progression.
- 130. D.** Rule: dot count increases $1 \rightarrow 2 \rightarrow 3$ per cell — Bottom row's circles go 1 dot \rightarrow 2 dots \rightarrow 3 dots, matching the count progression in earlier rows.
- 131. C.** Rule: upright \rightarrow mirrored \rightarrow mirrored and rotated 90° clockwise — Bottom row's P must end with the P mirrored and rotated 90° clockwise to match the two-step transformation in earlier rows.
- 132. A.** Rule: arrow rotates 90° clockwise across columns — Bottom row's pentagons go arrow up \rightarrow arrow right \rightarrow ?. Continuing 90° clockwise from right gives arrow down.
- 133. B.** Rule: shape-alone, shape-alone, combined-overlap — Bottom row goes star alone \rightarrow hexagon alone \rightarrow ?. The third cell must be the two shapes overlapping (star overlapping hexagon).
- 134. D.** Rule: $1 \rightarrow 2 \rightarrow 3$ nested shapes per cell — Bottom row's triangles go 1 triangle \rightarrow 2 nested \rightarrow ?. Continuing the count progression gives 3 nested triangles.
- 135. C.** Rule: size progresses small \rightarrow medium \rightarrow large — Bottom row's triangles must end with the large triangle to complete the size progression.

136. B. Rule: shape-pair cycles positions across rows — Bottom row's pair cycle follows triangle+circle → circle+square → ?. The next pair in the cycle is square+triangle.

Section H — Figure Classification (Q137–158)

137. C. Shared attribute: small black dot at the centre — All three given shapes have a tiny black dot exactly at their centre. The pentagon with a small black dot at its centre continues that centre-marking attribute.

138. A. Shared attribute: single internal straight line — All three given shapes contain exactly one straight line inside. The hexagon with a single diagonal line maintains the same attribute of having one internal straight line.

139. D. Shared attribute: two pairs of parallel sides — Parallelogram, rectangle, and rhombus each have two pairs of parallel sides. The square also has two pairs of parallel sides, completing the set of quadrilaterals with this property.

140. B. Shared attribute: polygon inscribed in a circle — All three given are polygons whose vertices touch the surrounding circle. The hexagon inscribed in a circle maintains the same inscription relationship.

141. A. Shared attribute: one side missing from outline — All three given shapes have a clear gap where one side is absent. The pentagon with one side missing continues the incomplete-outline attribute.

142. C. Shared attribute: contains an upward-pointing arrow — All three given shapes have an upward arrow drawn inside. The pentagon containing an upward arrow maintains the same internal-arrow attribute.

143. D. Shared attribute: divided into four equal quadrants by perpendicular lines — Square, circle, and hexagon are each split into four equal parts by perpendicular lines through the centre. The rectangle split into four equal quadrants continues that division pattern.

144. B. Shared attribute: directional arrow with curved tail — All three given arrows have a curved tail and point in a specific direction. The arrow pointing left with a curved tail continues the curved-tail-arrow category.

145. A. Shared attribute: top half shaded black — All three given shapes have the upper half shaded black and the lower half white. The pentagon with the top half shaded black continues the upper-half-shading attribute.

146. D. Shared attribute: shape containing three small symbols (arrow, cross, dot) — All three given shapes hold the same trio of inner symbols. The pentagon containing the same three symbols continues the triple-symbol attribute.

147. C. Shared attribute: thick bold outline — All three given shapes have a noticeably thick black border. The pentagon with a thick bold outline matches the bold-border attribute.

148. B. Shared attribute: contains exactly 2 small circles — All three given shapes have two small circles inside. The hexagon containing exactly 2 small circles continues the two-circle attribute.

149. A. Shared attribute: arrow pointing diagonally — All three given arrows point along a diagonal direction (45° lines). The arrow pointing diagonally up-left continues the diagonal-arrow category.

150. D. Shared attribute: shape containing a smaller concentric version of itself — All three given shapes have a smaller copy of the same shape nested inside. The pentagon with a smaller concentric pentagon continues the self-nesting attribute.

151. B. Shared attribute: filled with vertical stripes — All three given shapes have a vertical stripe pattern as their fill. The pentagon filled with vertical stripes continues the same fill pattern.

152. C. Shared attribute: polygon inside a circle, not touching the edge — All three given show a smaller polygon centred inside a circle without contacting the perimeter. The hexagon inside a circle without touching the edge maintains that non-touching relationship.

153. A. Shared attribute: filled with dotted pattern — All three given shapes are filled with dots. The pentagon filled with a dotted pattern continues the same fill type.

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

155. B. Shared attribute: taller than wide — Rectangle, oval, and arch are each taller than they are wide. The vertically oriented ellipse (taller than wide) continues the vertical-orientation attribute.

156. A. Shared attribute: X mark at centre — All three given shapes have an X drawn at their centre. The pentagon with an X mark at its centre continues the centre-X attribute.

157. D. Shared attribute: three dots in vertical line — All three given shapes contain three small dots arranged vertically. The pentagon containing three dots in a vertical line continues the vertical-dot arrangement.

158. C. Shared attribute: double-line outline — Hexagon, octagon, and decagon each have a double outline (two concentric lines). The pentagon with a double-line outline matches the double-border attribute.

Section I — Paper Folding (Q159–176)

159. D. Three folds, hole off all fold lines — Three folds create 8 layers. A central hole not on any fold duplicates across all three fold axes, producing 8 separate holes symmetrically arranged about the centre of the unfolded square.

160. B. Hole at non-fold corner mirrors across vertical fold — A hole on the top edge near the outer (left) corner is not on the fold. It duplicates across the vertical fold to produce 2 holes — symmetrically placed along the top edge, on the left and right of the vertical centre.

161. C. Diagonal fold, hole off the fold — A hole near the centre of the triangle is not on the diagonal fold. It mirrors across the fold to produce 2 holes symmetrically placed about the diagonal.

162. A. Two holes on non-fold corners create 4 unfolded holes — Each corner hole on the left edge of the folded rectangle mirrors across the vertical fold. The two original holes (upper-left and lower-left) each duplicate to the right side, giving 4 total holes — one at each corner of the unfolded square.

163. B. Lower-left corner mirrors across horizontal fold — A hole in the lower-left of the folded rectangle is not on the horizontal fold. It mirrors vertically to give 2 holes — one in the upper-left and one in the lower-left of the unfolded square.

164. D. Two-fold pattern with one outer-corner hole and one on-fold hole — The outer-corner hole duplicates across both folds to create 4 corner holes. The hole on the vertical fold at its midpoint mirrors only across the horizontal fold (since it sits on the vertical fold), adding 2 edge-midpoint holes at the top-centre and bottom-centre. Total = 6 holes.

165. C. Hole on fold line stays single — A hole punched directly on the vertical fold near the top does not duplicate because both layers share the same point. The result is a single hole on the vertical centre line of the unfolded square, near the top.

166. A. Hole on diagonal fold stays single — A hole punched exactly on the diagonal fold at its centre does not duplicate. Both layers share the same point, leaving one hole at the centre of the unfolded square.

167. B. Right edge hole mirrors across horizontal fold — A hole on the right edge of the folded rectangle, vertically centred, is not on the horizontal fold. It mirrors to give 2 holes on the right edge of the unfolded square, symmetrically placed above and below the horizontal centre.

168. D. Two parallel vertical folds, corner hole — Two parallel vertical folds create 4 layers stacked across the width. A corner hole punched through all 4 layers produces 4 holes evenly spaced along the top edge of the unfolded square.

169. A. Centre of folded rectangle mirrors across horizontal fold — A central hole in the folded rectangle is not on the fold. It mirrors vertically to give 2 holes on the vertical centre line of the unfolded square, one above and one below the horizontal centre.

170. C. Diagonal fold, central hole — A hole near the centre of the triangle is not on the diagonal fold. It mirrors across the fold to produce 2 holes symmetrically placed about the diagonal.

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

172. B. Bottom edge hole mirrors across vertical fold — A hole on the bottom edge of the folded rectangle, away from the fold line, is not on the vertical fold. It mirrors horizontally to give 2 holes on the bottom edge of the unfolded square, symmetrically placed about the vertical centre.

173. D. Three folds, hole near upper corner — Three folds (two parallel vertical plus one horizontal) create 8 layers. A hole near the upper corner of the strip duplicates across all three folds, producing 8 holes arranged in two horizontal rows of 4 spread evenly across the unfolded square's top and bottom regions.

174. C. Hole on bottom edge centre mirrors across horizontal fold — A hole at the centre of the bottom edge of the folded rectangle is not on the horizontal fold (the fold is the top edge of the folded rectangle). It mirrors vertically to give 2 holes — one at the top-centre and one at the bottom-centre of the unfolded square.

175. B. Top-edge hole on horizontal fold, off-centre — A hole on the top edge of the small folded square is on the horizontal fold (no duplication across horizontal fold), but not on the vertical fold (so it duplicates across the vertical fold). The result is 2 holes on the horizontal centre line of the unfolded square, symmetrically placed left and right of the vertical centre.

176. C. Two holes off the diagonal fold — Each hole is not on the fold, so each mirrors across the diagonal to produce 2 holes. With two original holes punched, the total is 4 holes mirrored in pairs across the diagonal fold line.