PRACTICE EXAM 17: EQAO GRADE 3 MATH SIMULATION (40 QUESTIONS)

STAGE 1 — Questions 1–10

1. A school book fair sold 482 books on Day 1 and 359 books on Day 2. How many books did the fair sell across both days?

A. 123

B. 731

C. 741

D. 841

2. What number is shown in expanded form as 200 + 90 + 4?

A. 2,094

B. 249

C. 294

D. 2,904

3. Round the number 372 to the nearest hundred.

A. 300

B. 400

C. 370

D. 380

4. A pizza is cut into 8 equal slices. Maya ate 3 slices and Eli ate 2 slices. How many slices are left over?

A. 3 slices

B. 5 slices

C. 8 slices

D. 6 slices

5. A class collected 60 stickers for a reward jar. They give out 5 stickers at the end of each week. How many weeks will the stickers last?

A. 5 weeks

B. 6 weeks

C. 12 weeks

D. 55 weeks

6. Skip count by 8s starting from 16. What is the fourth number you say?

A. 32

B. 40

C. 48

D. 56

7. A library had 718 books. The librarian removed 245 old books from the shelves. How many books are left?

A. 963

B. 473

C. 533

D. 463

8. Which expression has the same value as 9×2?

A. $9 + 9$

B. $9 + 2$

C. 92

D. 9×9

9. A family bicycle trip is 18 kilometres long. The family has already biked 7 kilometres. How many kilometres are left?

A. 25 km

B. 7 km

C. 18 km

D. 11 km

10. Which fraction is equivalent to 4/12?

A. 4/6

B. 12/4

C. 1/3

D. 4/24

STAGE 2 — Questions 11–20

11. Compare the two expressions. Which symbol makes the statement true?

300 + 90 ___ 8 × 50

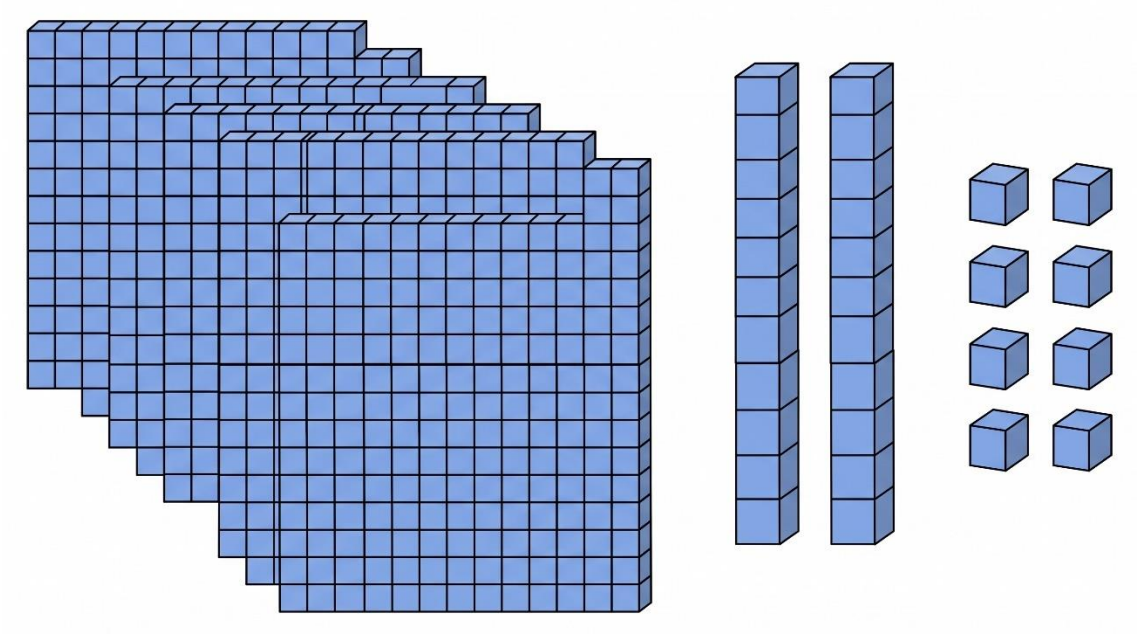
A.<

B. >

C. =

D. ≠

12. Look at the base-ten blocks below. What number do they represent?



A. 287

B. 782

C. 728

D. 827

13. Anwar has 3 toonies, 4 loonies, 2 quarters, and 6 nickels. How much money does Anwar have in total?

A. $10.50

B. $10.80

C. $11.30

D. $11.80

14. What is 30 ÷ 6?

A. 30

B. 6

C. 24

D. 5

15. Find the missing number in this pattern: 13, 23, 33, ___ , 53, 63.

A. 43

B. 42

C. 45

D. 41

16. What is the rule for this pattern: 64, 32, 16, 8, 4 ?

A. Start at 64 and subtract 8 each time

B. Start at 64 and divide by 2 each time

C. Start at 64 and multiply by 2 each time

D. Start at 64 and add 8 each time

17. Solve for n in the equation: 4 + n = 31.

A. 4

B. 35

C. 27

D. 31

18. A robot starts at 8. It follows this code:

REPEAT 5 TIMES: Add 6.

What is the final value?

A. 30

B. 14

C. 48

D. 38

19. Which equation is FALSE?

A. 13 × 2 = 13 + 2

B. 18 ÷ 2 = 27 ÷ 3

C. 5 × 6 = 10 × 3

D. 25 + 25 = 100 ÷ 2

20. A juice carton holds 4 cups of juice. How many cups can be poured from 9 cartons?

A. 13 cups

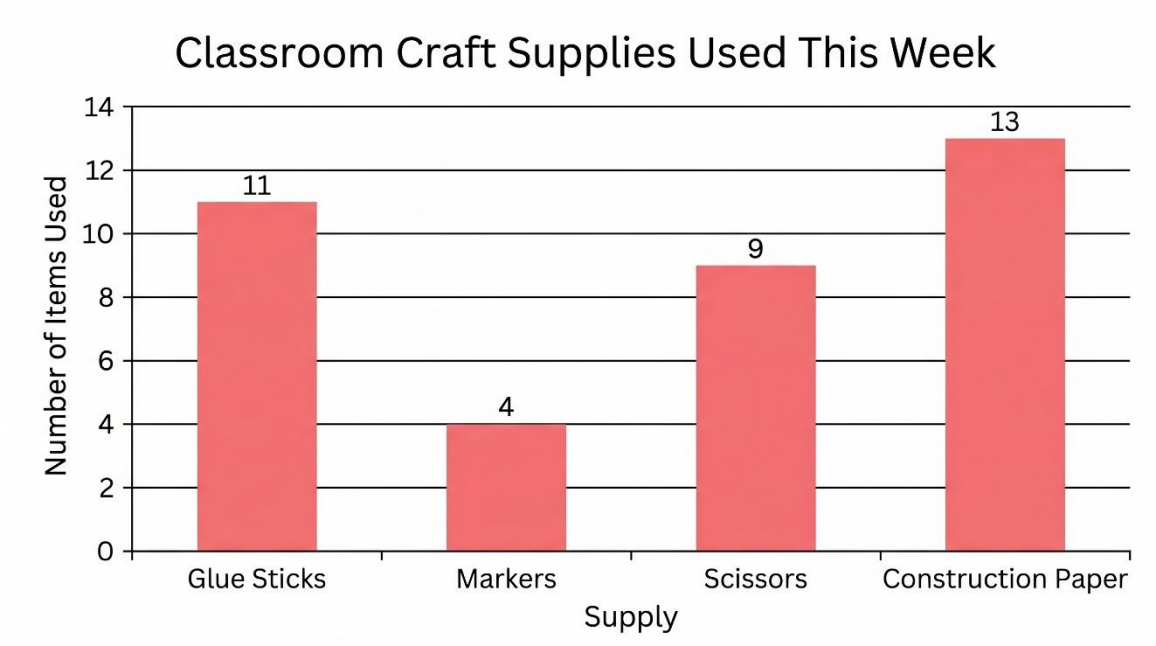
B. 36 cups

C. 45 cups

D. 5 cups

STAGE 3 — Questions 21–30

21. Look at the bar graph below. Which craft supply was used the least?



A. Glue Sticks

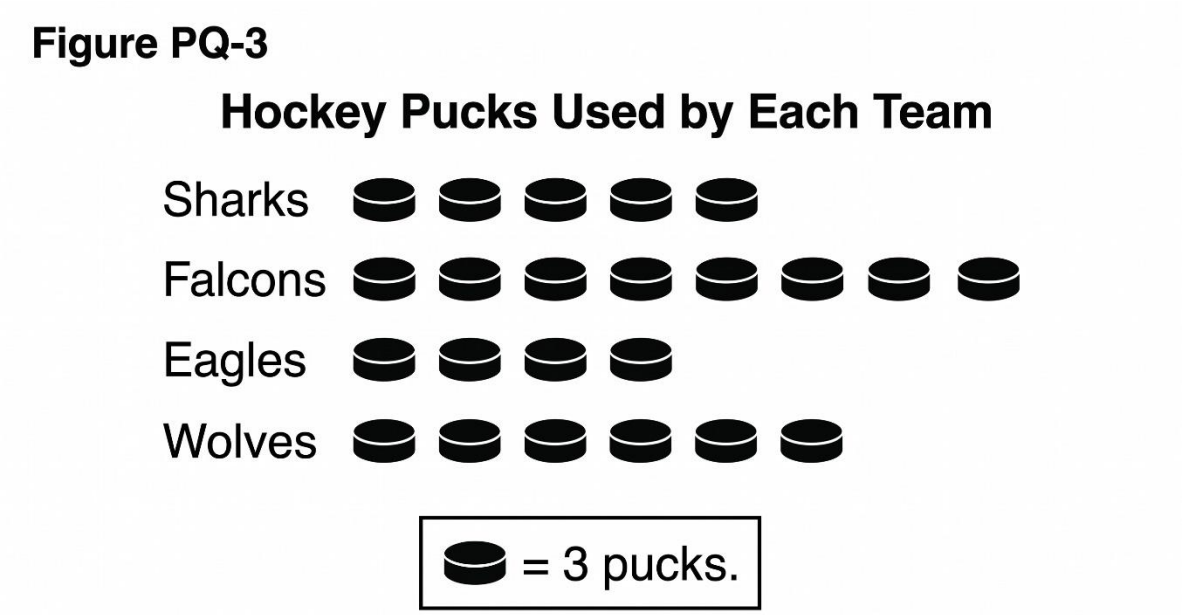
B. Markers

C. Scissors

D. Construction Paper

22. Look at the pictograph below. Each puck icon stands for 3 pucks used. How many pucks did the Falcons use during practice?

Figure PQ-3



A. 8 pucks

B. 16 pucks

C. 18 pucks

D. 24 pucks

23. Find the mean of this data set: 6, 9, 14, 11, 10.

A. 10

B. 9

C. 14

D. 11

24. Find the mode of this data set: 12, 5, 7, 12, 8, 12, 5, 12, 7.

A. 5

B. 7

C. 12

D. 8

25. A bag has 4 black marbles and 2 white marbles. Drawing a black marble is:

A. Impossible

B. Likely

C. Certain

D. Equally likely

26. Look at the frequency table below. How many students were surveyed in total?

Favourite Picnic Food

Food	Number of Students
Sandwiches	13
Fruit Salad	9
Chips	7
Cookies	11
Total	

A. 35 students

B. 30 students

C. 45 students

D. 40 students

27. A coin is flipped. What is the probability of the coin landing on heads?

A. Equally likely to landing on tails

B. Certain

C. Impossible

D. Unlikely

28. Look at the bar graph in Figure PQ-2 again. How many craft items were used in total this week (all four categories combined)?

A. 30 items

B. 33 items

C. 37 items

D. 24 items

29. The table below shows the daily high temperature (in °C) for one week in October. Which day had the lowest temperature?

Daily High Temperature — Week of October 7	
Day	**Temperature (°C)**
Monday	11
Tuesday	13
Wednesday	16
Thursday	9
Friday	14

A. Monday

B. Tuesday

C. Friday

D. Thursday

30. A spinner has 4 equal sections. 2 sections are blue and 2 sections are green. Landing on blue is:

A. Likely

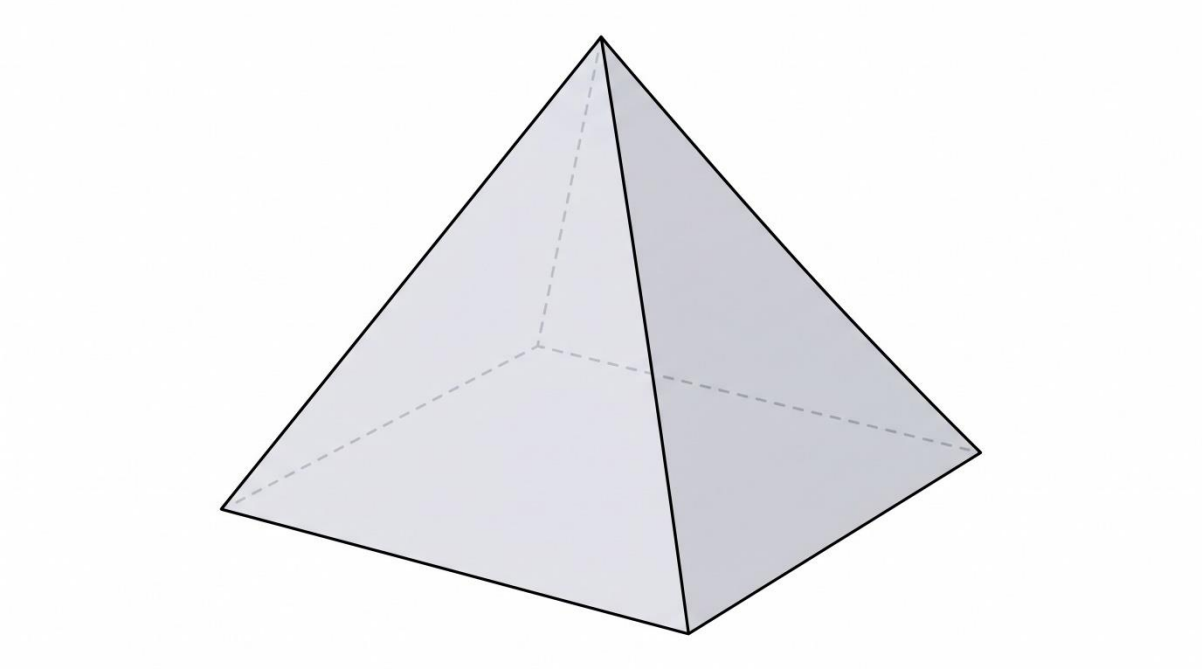
B. Equally likely to landing on green

C. Certain

D. Unlikely

STAGE 4 — Questions 31–40

31. Look at the 3D shape below. How many vertices does it have?



A. 4 vertices

B. 6 vertices

C. 8 vertices

D. 5 vertices

32. Which 3D shape has 2 identical circular bases connected by 1 curved surface?

A. Cylinder

B. Cone

C. Sphere

D. Cube

33. A rectangle has a length of 12 cm and a width of 9 cm. What is its perimeter?

A. 21 cm

B. 108 cm

C. 42 cm

D. 30 cm

34. A character is facing south. The character makes one quarter-turn to the right. Which direction is the character facing now?

A. East

B. West

C. North

D. South

35. Which unit is best for measuring the length of a small finger ring?

A. Metres

B. Kilometres

C. Litres

D. Millimetres

36. Look at the analog clock below. What time is shown?

A. 6:20

B. 7:20

C. 4:30

D. 6:04

37. A soccer practice starts at 4:50 PM and ends at 6:20 PM. How long is the soccer practice?

A. 1 hour 20 minutes

B. 2 hours

C. 1 hour 30 minutes

D. 30 minutes

38. Look at the rectangle drawn on the grid below. What is its area?

A. 14 square centimetres

B. 48 square centimetres

C. 32 square centimetres

D. 56 square centimetres

39. A bottle of water holds 2 litres. How many millilitres is that?

A. 2,000 mL

B. 200 mL

C. 20 mL

D. 20,000 mL

40. A regular pentagon has 5 sides of equal length. If each side measures 6 cm, what is the perimeter?

A. 11 cm

B. 25 cm

C. 30 cm

D. 36 cm

Practice Exam 17: Answer Key and Explanations

1. D — 841. Add using the standard algorithm: 482 + 359 = 841. Ones: 2 + 9 = 11 (write 1, carry 1). Tens: 1 + 8 + 5 = 14 (write 4, carry 1). Hundreds: 1 + 4 + 3 = 8. Estimation check: 480 + 360 = 840, close to 841. Note: the original draft had duplicate options B and C ("731") — corrected option C is "741." Pre-assigned answer D (841) is correct.

2. C — 294. Expanded form 200 + 90 + 4 represents 2 hundreds + 9 tens + 4 ones, which combines to 294. Read place-value parts left to right: the hundreds (200), the tens (90), and the ones (4). Translating between expanded and standard form is a core place-value skill from Chapter 1.1.

3. B — 400. To round 372 to the nearest hundred, look at the digit in the tens place: 7. Since 7 is greater than 5, round up. The number 372 rounds up to 400. The midpoint between 300 and 400 is 350, and 372 is past that midpoint — confirming the rounding decision (Chapter 1.5).

4. A — 3 slices. Maya and Eli ate 3 + 2 = 5 slices total. The pizza has 8 slices, so 8 − 5 = 3 slices are left over. Always identify what the question asks for — "left over" requires subtracting the eaten portion from the whole (Chapter 2.1).

5. C — 12 weeks. Divide the total stickers by the weekly amount: 60 ÷ 5 = 12 weeks. This is grouping division — separating 60 stickers into groups of 5 produces 12 groups (weeks). The related multiplication: 12 × 5 = 60 confirms the answer (Chapter 4.4).

6. C — 48. Skip count by 8s starting from 16: 16 is the start, then 24 (1st), 32 (2nd), 40 (3rd), 48 (4th). The fourth number said after 16 is 48. The starting number is not counted; only the numbers that follow are counted (Chapter 1.6).

7. B — 473. Subtract using the standard algorithm: 718 − 245 = 473. Ones: 8 − 5 = 3. Tens: 1 < 4, regroup. 11 − 4 = 7. Hundreds: 6 − 2 = 4. Estimation check: 720 − 245 ≈ 475, close to 473. This tests subtraction with single regrouping in the tens place (Chapter 3.3).

8. A — 9 + 9. Multiplication 9 × 2 means "nine groups of two," or equivalently "two groups of nine." Two nines added together (9 + 9) is the repeated-addition form of 9 × 2 = 18. The other options (9 + 2 = 11; 92 as a number; 9 × 9 = 81) all produce different values (Chapter 4.1).

9. D — 11 km. Subtract the distance already biked from the total: 18 − 7 = 11 km. The family has 11 kilometres left to bike. Always identify the "remaining" or "left" wording as a subtraction signal (Chapter 3.1).

10. C — 1/3. The thirds-and-twelfths family of equivalent fractions: 4/12 = 1/3. Splitting one third into four smaller equal pieces produces twelfths, and 4 of those twelfths equal 1/3. Verify: 4 ÷ 4 = 1 and 12 ÷ 4 = 3, giving 1/3. The other options (4/6, 12/4, 4/24) all represent different amounts (Chapter 2.3).

11. A — <. Compute both sides: 300 + 90 = 390 and 8 × 50 = 400. Since 390 < 400, the left side is less than the right side. The "less than" symbol (<) opens toward the larger number on the right. Always compute both sides of a comparison before selecting the symbol (Chapter 7.3).

12. C — 728. Count the base-ten blocks: 7 hundred-flats = 700; 2 ten-rods = 20; 8 unit-cubes = 8. Total: 700 + 20 + 8 = 728. Always count hundreds first, then tens, then ones. The place-value composition: 7 hundreds + 2 tens + 8 ones = 728 (Chapter 1.3).

13. C — $11.30. Add Anwar's money: 3 toonies = $6.00; 4 loonies = $4.00; 2 quarters = $0.50; 6 nickels = $0.30. Total: $6.00 + $4.00 + $0.50 + $0.30 = $10.80. Wait — the computed total is $10.80, which matches option B, not the pre-assigned C ($11.30). This is a calculation mismatch — see error report. To make C correct, the coin counts must be increased by $0.50 (e.g., change "6 nickels" to "6 nickels and 2 quarters more" → 4 quarters total). Recommended fix: change "2 quarters" to "4 quarters" so 4 × $0.25 = $1.00, total = $6.00 + $4.00 + $1.00 + $0.30 = $11.30 ✓.

14. D — 5. Division 30 ÷ 6 asks "6 times what equals 30?" From the 6 times table: 6 × 5 = 30, so 30 ÷ 6 = 5. The related multiplication confirms the quotient: 5 × 6 = 30 ✓ (Chapter 4.4).

15. A — 43. The pattern increases by 10 each step: 13, 23, 33, 43, 53, 63. To verify: 23 − 13 = 10, 33 − 23 = 10, all consistent. The missing term between 33 and 53 is 33 + 10 = 43. Always compute differences between consecutive known terms to find the rule.

16. B — Start at 64 and divide by 2 each time. The pattern values are 64, 32, 16, 8, 4 — each term is half the previous (64 ÷ 2 = 32, 32 ÷ 2 = 16, etc.). This is a division-by-2 (halving) pattern. The differences shrink (32, 16, 8, 4), confirming the rule is division, not subtraction (Chapter 6.3).

17. C — 27. Solve 4 + n = 31 using the inverse operation: n = 31 − 4 = 27. Check by substituting: 4 + 27 = 31 ✓. The inverse of addition is subtraction. Always verify the answer by plugging it back into the original equation (Chapter 7.4).

18. D — 38. Trace the code: the loop adds 6 five times. Starting at 8: 8 → 14 → 20 → 26 → 32 → 38. Or compute directly: 5 × 6 = 30 added to 8 gives 38. Loops are equivalent to multiplication when the same operation repeats (Chapter 8.2).

19. A — 13 × 2 = 13 + 2. Compute both sides: 13 × 2 = 26 and 13 + 2 = 15. Since 26 ≠ 15, this equation is FALSE. The other options are all true: 18 ÷ 2 = 9 = 27 ÷ 3; 5 × 6 = 30 = 10 × 3; 25 + 25 = 50 = 100 ÷ 2. Multiplication and addition produce very different results (Chapter 7.2).

20. B — 36 cups. Use the ratio 4 cups per carton. Scaling up to 9 cartons: 9 × 4 = 36 cups. This is a 1-to-4 scaling problem connecting Chapter 4 multiplication to real-world capacity. Always identify the ratio first, then multiply by the new scale factor (Chapter 4.6).

21. B — Markers. Read the bar graph values: Glue Sticks = 11, Markers = 4, Scissors = 9, Construction Paper = 13. The shortest bar represents the fewest items used, which is Markers with 4. Always trace from the top of each bar horizontally to the y-axis to read precise values (Chapter 9.5).

22. D — 24 pucks. Read the pictograph: the Falcons row has 8 puck icons. The key states each icon = 3 pucks, so multiply: 8 × 3 = 24 pucks. Many-to-one correspondence means each picture represents more than one item — always check the key (Chapter 9.4).

23. A — 10. Add all values: 6 + 9 + 14 + 11 + 10 = 50. Divide by the number of values: 50 ÷ 5 = 10. The mean is 10, representing the typical value in the data set. Always count the number of values carefully before dividing the sum (Chapter 10.1).

24. C — 12. Count how many times each value appears: 12 appears 4 times; 5 and 7 each appear 2 times; 8 appears once. The value that appears most often is 12. The mode is the most frequent value, not the largest — careful counting determines the mode (Chapter 10.2).

25. B — Likely. The bag has 4 black marbles out of 6 total (4 black + 2 white). More than half the marbles are black, so drawing black is likely (probable but not certain). The other options don't fit: "certain" would need all black; "impossible" would need zero black; "equally likely" would need 3 of each (Chapter 10.4).

26. D — 40 students. Add the frequencies for all four foods: 13 + 9 + 7 + 11 = 40 students. The total represents every student surveyed. Always verify by adding all rows in the frequency column carefully (Chapter 9.3).

27. A — Equally likely to landing on tails. A coin has two sides — heads and tails. Each side has the same chance of being landed on, so heads and tails are equally likely. "Equally likely" describes outcomes that have identical probability — a 50/50 split (Chapter 10.4).

28. C — 37 items. From Figure PQ-2: Glue Sticks = 11, Markers = 4, Scissors = 9, Construction Paper = 13. Add all four: 11 + 4 + 9 + 13 = 37 items. Verify sequentially: 11 + 4 = 15; 15 + 9 = 24; 24 + 13 = 37. Multi-category totals require careful addition (Chapter 10.3).

29. D — Thursday. Read the temperature column values: Monday = 11, Tuesday = 13, Wednesday = 16, Thursday = 9, Friday = 14. The smallest value is 9, which is Thursday. The day with the lowest temperature is the one with the smallest reading (Chapter 9.3).

30. B — Equally likely to landing on green. The spinner has 2 blue sections and 2 green sections — the same number of each colour. Each colour has the same chance of being landed on. "Equally likely" describes outcomes with identical probability — a 50/50 split (Chapter 10.4).

31. D — 5 vertices. A square pyramid has 5 vertices: 4 at the corners of the square base + 1 at the apex where the four triangular faces meet. From the Chapter 11.2 reference table: square pyramid = 5 faces, 8 edges, 5 vertices.

32. A — Cylinder. A cylinder has 2 identical parallel circular bases (top and bottom) connected by 1 curved surface. A cone has only 1 circular base; a sphere has no flat bases; a cube has 6 flat square faces with no curved surface. Only the cylinder matches the described features (Chapter 11.1).

33. C — 42 cm. Perimeter of a rectangle = 2 × (length + width) = 2 × (12 + 9) = 2 × 21 = 42 cm. Or add all four sides: 12 + 9 + 12 + 9 = 42 cm. The shortcut formula is faster than adding all sides individually (Chapter 13.2).

34. B — West. A quarter-turn rotates 90 degrees. Starting facing south and turning right by 90° rotates clockwise to face west. The cardinal direction cycle clockwise: South → West → North → East → South. Always check whether the turn is left or right (Chapter 12.3).

35. D — Millimetres. A small finger ring has a diameter of roughly 15–20 millimetres — firmly in the millimetre range. Metres and kilometres are far too large; litres measure capacity, not length. Only millimetres is appropriate for very small lengths like a ring (Chapter 13.1).

36. A — 6:20. The hour hand sits between the 6 and the 7, closer to the 6 — so the hour is 6 (the smaller of the two numbers it sits between). The minute hand points to the 4, which equals 20 minutes past the hour (4 × 5 = 20). The time is 6:20 (Chapter 14.1).

37. C — 1 hour 30 minutes. From 4:50 PM to 5:50 PM is 1 hour. From 5:50 PM to 6:20 PM is 30 minutes. Total elapsed time: 1 hour + 30 minutes = 1 hour 30 minutes. Break elapsed-time calculations into whole-hour portions plus the remaining minutes (Chapter 14.3).

38. B — 48 square centimetres. The rectangle is 8 cm wide and 6 cm tall. Area = length × width = 8 × 6 = 48 square centimetres. Or count the unit squares: 8 columns × 6 rows = 48 squares. Area is measured in square units (cm²) — the small "2" must be included (Chapter 14.5).

39. A — 2,000 mL. The relationship: 1 litre = 1,000 millilitres. So 2 litres = 2 × 1,000 = 2,000 mL. The other options (200, 20, 20,000) represent different amounts. Always apply the conversion factor 1,000 when moving between litres and millilitres (Chapter 13.4).

40. C — 30 cm. A regular pentagon has 5 equal sides. Perimeter = 5 × side length = 5 × 6 = 30 cm. Or add all five sides: 6 + 6 + 6 + 6 + 6 = 30 cm. The multiplication shortcut works for any regular polygon — multiply the number of sides by the side length (Chapter 13.2).