PRACTICE EXAM 13: EQAO GRADE 3 MATH SIMULATION (40 QUESTIONS)

STAGE 1 — Questions 1–10

1. A ski resort sold 419 lift tickets on Friday and 267 lift tickets on Saturday. How many lift tickets were sold over the two days?

A. 152

B. 576

C. 696

D. 686

2. What is the value of the digit 5 in the number 957?

A. 5

B. 500

C. 50

D. 5,000

3. Round the number 423 to the nearest hundred.

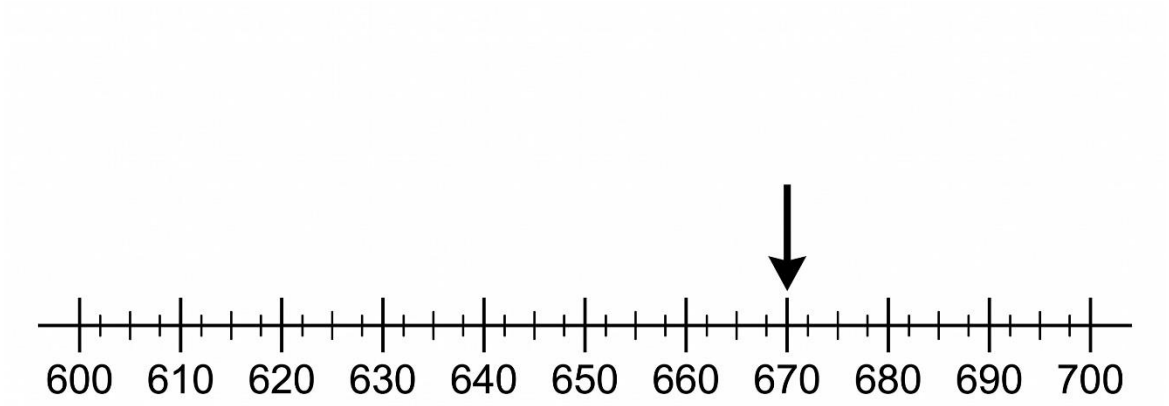
A. 400

B. 420

C. 500

D. 430

4. Look at the number line below. What number is marked by the arrow?



A. 660

B. 665

C. 670

D. 680

5. A pet shelter has 36 cats. They are placed in equal groups of 4 in each room. How many rooms are needed?

A. 4 rooms

B. 9 rooms

C. 32 rooms

D. 40 rooms

6. A pizza is cut into 8 equal slices. Ravi ate 3 slices. What fraction of the pizza is left over?

A. 3/8

B. 8/3

C. 8/5

D. 5/8

7. Mira buys a smoothie for $4.75. She pays with a $10 bill. How much change does Mira receive?

A. $5.25

B. $5.75

C. $4.25

D. $4.75

8. Skip count by 7s starting from 14. What is the fourth number you say?

A. 28

B. 35

C. 42

D. 49

9. Which expression has the same value as 5 × 4?

A. 5 + 4

B. 4 + 4 + 4 + 4 + 4

C. 54

D. 5 × 5 × 4

10. Which fraction is equivalent to 1/3?

A. 1/6

B. 3/1

C. 1/9

D. 3/9

STAGE 2 — Questions 11–20

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

814 ___ 781

A. >

B. =

C.

D. ≤

12. A school had 612 books in its library. The librarian removed 247 old books to make room for new ones. How many books are left in the library?

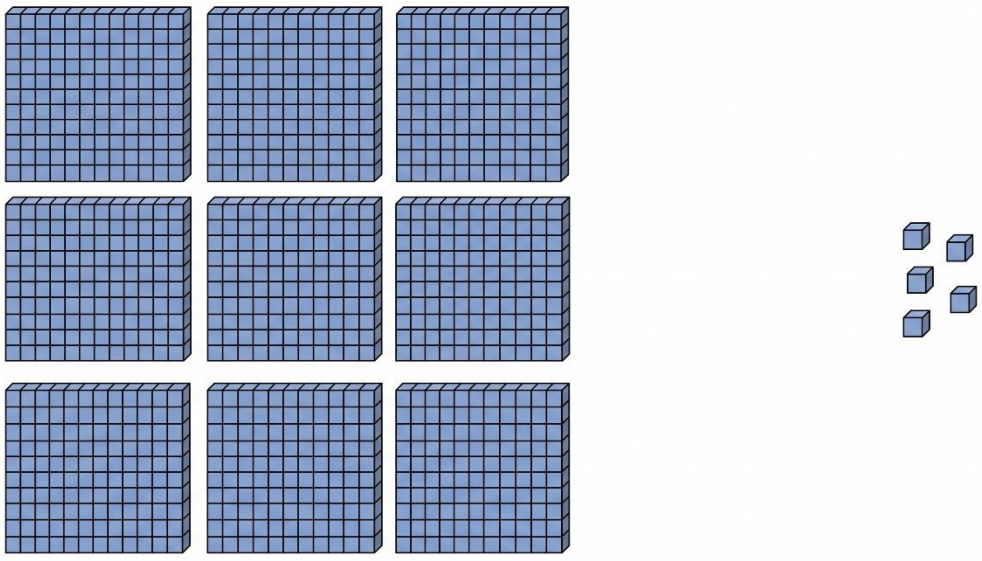
A. 859

B. 475

C. 435

D. 365

13. What number is shown by the base-ten blocks below?



A. 950

B. 905

C. 509

D. 95

14. Owen has 4 toonies, 2 loonies, 4 quarters, and 3 nickels. How much money does Owen have in total?

A. $11.15

B. $10.15

C. $11.25

D. $11.50

15. Find the missing number in this pattern: 96, 88, 80, ___ , 64, 56.

A. 70

B. 76

C. 72

D. 78

16. What is the rule for this pattern: 1, 3, 9, 27, 81 ?

A. Start at 1 and add 2 each time

B. Start at 1 and multiply by 3 each time

C. Start at 1 and add 8 each time

D. Start at 1 and double each time

17. Solve for n in the equation: $6 \times n = 42$.

A. 36

B. 48

C. 6

D. 7

18. A robot starts at 60. It follows this code:

Step 1: Subtract 15.

Step 2: Add 25.

Step 3: Subtract 5.

What is the final value?

A. 45

B. 55

C. 65

D. 75

19. Which equation is TRUE?

A. $40 \div 8 = 20 \div 4$

B. $13 \times 2 = 13 + 2$

C. $9 + 4 = 9 \times 4$

D. $20 - 10 = 20 \div 10$

20. The summer reading challenge gives every student 1 sticker for each book they read. If Anya reads 9 books, how many stickers does Anya earn?

A. 1 sticker

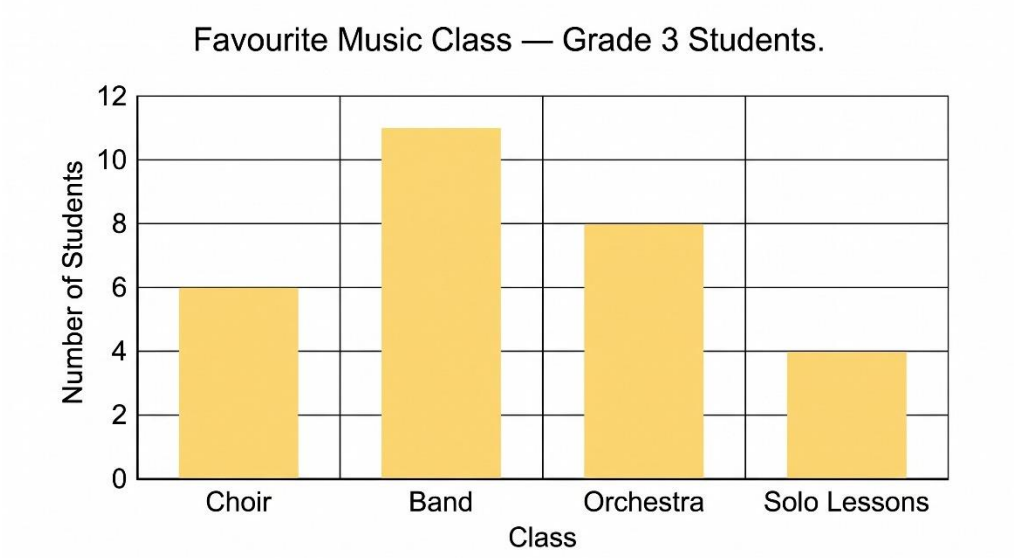
B. 9 stickers

C. 10 stickers

D. 18 stickers

STAGE 3 — Questions 21–30

21. Look at the bar graph below. How many students chose orchestra as their favourite music class?



A. 11 students

B. 8 students

C. 6 students

D. 4 students

22. Look at the pictograph below. Each cup icon stands for 4 cups of lemonade sold. How many cups did the lemonade stand sell on Saturday?

Favourite Stadium Snack.	
Snack	**Number of Students**
Hot Dogs	16
Nachos	11
Soup	6
Popcorn	9

A. 14 cups

B. 24 cups

C. 28 cups

D. 32 cups

23. Find the mean of this data set: 12, 8, 15, 11, 9.

A. 11

B. 12

C. 8

D. 9

24. Find the mode of this data set: 5, 10, 5, 7, 10, 5, 8, 5, 10.

A. 10

B. 8

C. 7

D. 5

25. A jar contains 7 white candies and 3 brown candies. Drawing a white candy is:

A. Unlikely

B. Likely

C. Certain

D. Impossible

26. Look at the frequency table below. Which book genre received the most votes?

Favourite Book Genre — Class Library Survey	
Genre	**Number of Students**
Mystery	12
Adventure	15
Fantasy	9
Historical	4

A. Mystery

B. Fantasy

C. Adventure

D. Historical

27. A coin is flipped. The probability of the coin landing on heads is:

A. Equally likely to landing on tails

B. Certain

C. Impossible

D. Unlikely

28. Look at the bar graph in Figure PQ-3 again. How many students chose either choir or solo lessons?

A. 6 students

B. 4 students

C. 11 students

D. 10 students

29. The table below shows the number of cookies baked by each volunteer for a school bake sale. What is the total number of cookies baked?

Bake Sale — Cookies Baked

Volunteer	Cookies Baked
Mr. Ali	22
Ms. Brooks	18
Mr. Chen	30
Ms. Diaz	25

A. 85 cookies

B. 95 cookies

C. 100 cookies

D. 105 cookies

30. A spinner has 4 equal sections numbered 1, 2, 3, 4. What is the probability of spinning a 5?

A. Impossible

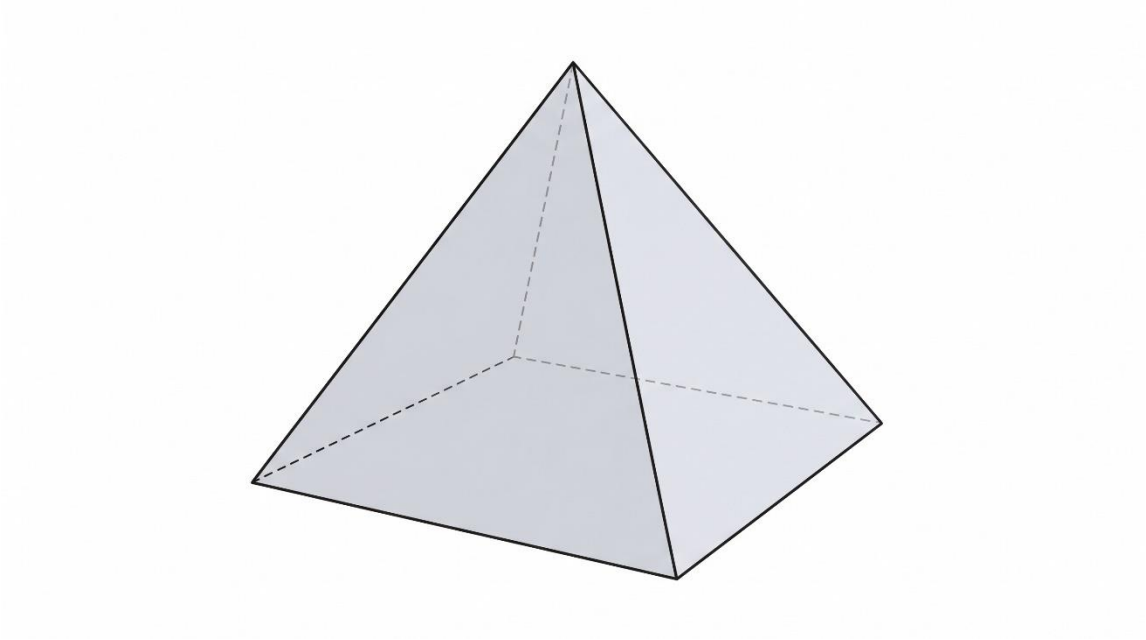
B. Unlikely

C. Equally likely

D. Certain

STAGE 4 — Questions 31–40

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



A. 5 edges

B. 4 edges

C. 12 edges

D. 8 edges

32. Which 3D shape has 6 faces, 12 edges, and 8 vertices, with all faces the same size and shape?

A. Cube

B. Rectangular prism

C. Triangular prism

D. Square pyramid

33. A rectangle has a length of 9 cm and a width of 4 cm. What is its perimeter?

A. 13 cm

B. 26 cm

C. 36 cm

D. 22 cm

34. A character is facing west. The character makes one quarter-turn to the right, then another quarter-turn to the right. Which direction is the character facing now?

A. West

B. South

C. East

D. North

35. Which unit is best for measuring the height of a tall office building?

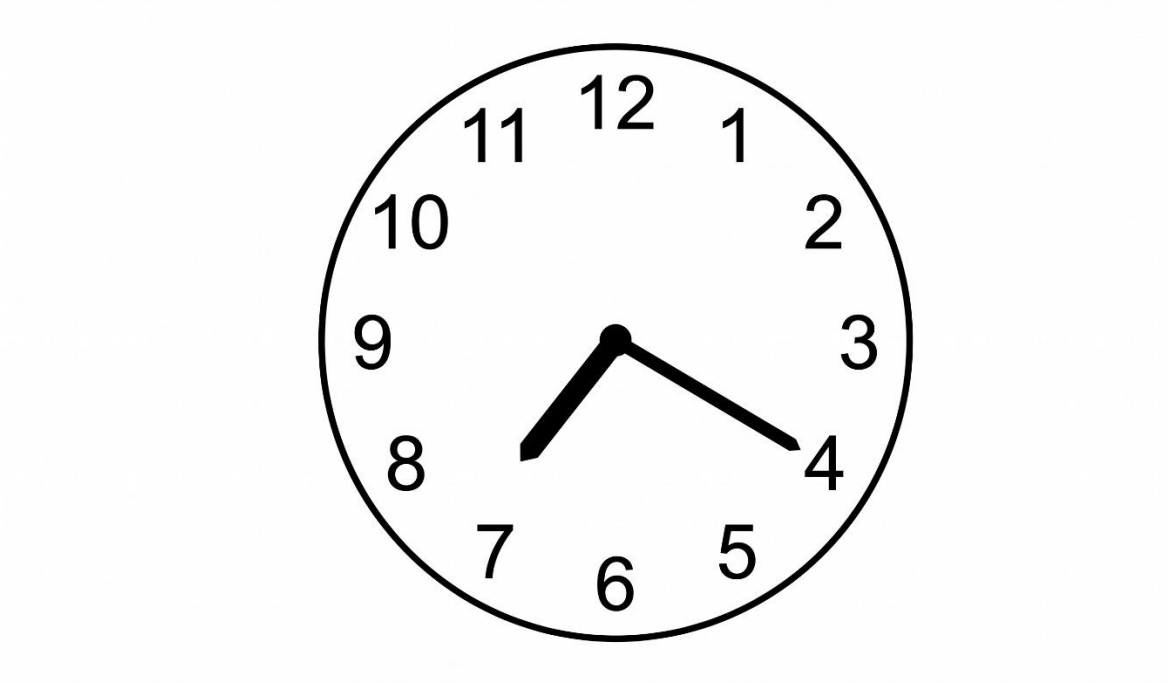
A. Metres

B. Centimetres

C. Millimetres

D. Grams

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



A. 8:20

B. 4:35

C. 7:04

D. 7:20

37. A pottery class starts at 2:50 PM and ends at 4:15 PM. How long is the pottery class?

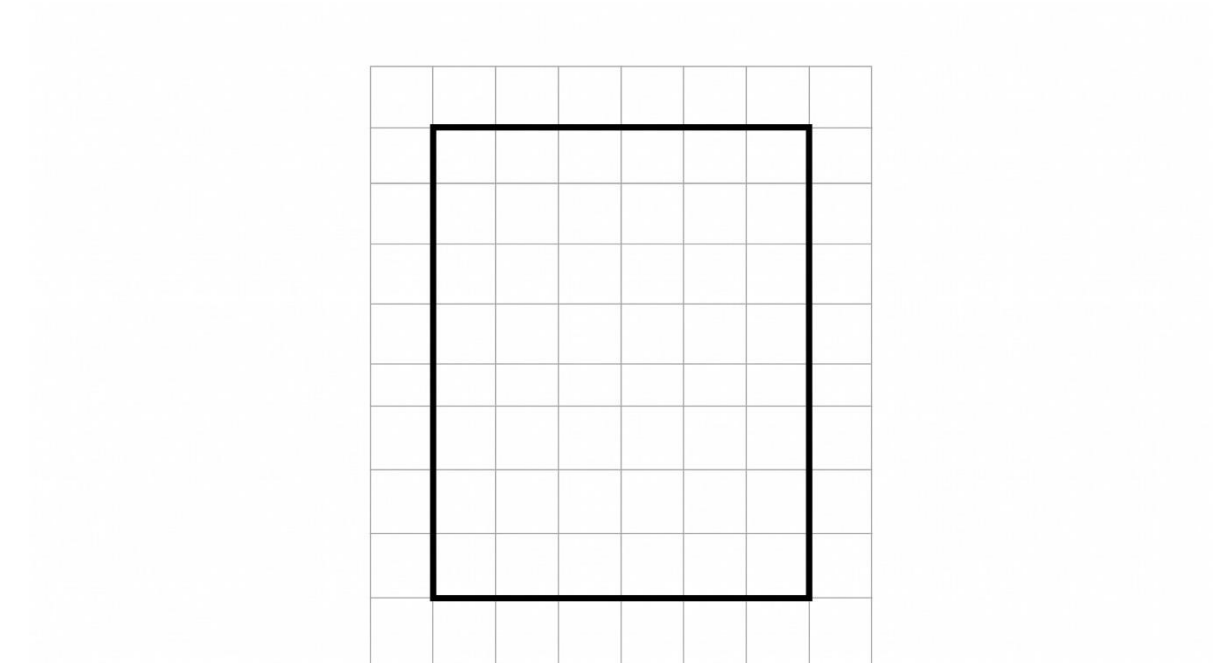
A. 1 hour 35 minutes

B. 1 hour 25 minutes

C. 25 minutes

D. 2 hours

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



A. 12 square centimetres

B. 24 square centimetres

C. 35 square centimetres

D. 40 square centimetres

39. A bucket holds 4 litres of water. How many millilitres is that?

A. 40 mL

B. 400 mL

C. 40,000 mL

D. 4,000 mL

40. A regular hexagon has 6 sides of equal length. If each side is 9 cm, what is the perimeter?

A. 15 cm

B. 36 cm

C. 54 cm

D. 81 cm

Practice Exam 13: Answer Key and Explanations

1. D — 686. Add using the standard algorithm: 419 + 267 = 686. Ones: 9 + 7 = 16 (write 6, carry 1). Tens: 1 + 1 + 6 = 8. Hundreds: 4 + 2 = 6. Estimation check: 420 + 270 = 690, close to 686. This tests addition with regrouping in the ones place (curriculum expectation B2.5).

2. C — 50. The digit 5 sits in the tens place of the number 957. Its value is 5 × 10 = 50. Always distinguish between the digit (5) and the digit's value (50) — same digit, different amount depending on position. This is a core place-value concept from Chapter 1.2.

3. A — 400. To round 423 to the nearest hundred, look at the digit in the tens place: 2. Since 2 is less than 5, round down. The number 423 rounds down to 400. The midpoint between 400 and 500 is 450, and 423 is before that midpoint — confirming the rounding decision (Chapter 1.5).

4. C — 670. Read the number line: the arrow points exactly at the labelled tick mark 670. When the arrow lands precisely on a labelled tick, the value is read directly without estimation. Always check whether the arrow is on a tick or between two ticks (Chapter 1.4).

5. B — 9 rooms. Divide the total cats by the cats per room: 36 ÷ 4 = 9 rooms. This is grouping division — separating 36 cats into groups of 4 produces 9 rooms. The related multiplication: 9 × 4 = 36 confirms the answer (Chapter 4.4).

6. D — 5/8. The pizza has 8 equal slices. Ravi ate 3 slices, so 8 − 3 = 5 slices are left. The fraction representing the leftover portion is 5/8. Always identify what the question asks for — "is left over" requires subtracting the eaten portion from the whole (Chapter 2.1).

7. A — $5.25. Change = amount paid − price = $10.00 − $4.75. Using the counting-up strategy: from $4.75, add 25¢ to reach $5.00, then add $5.00 to reach $10.00. Total change: $5.25. Estimation check: $10 − $5 = $5, close to $5.25 (Chapter 5.3).

8. C — 42. Skip count by 7s starting from 14: 14 is the start, then 21 (1st), 28 (2nd), 35 (3rd), 42 (4th). The fourth number said after 14 is 42. The starting number is not counted; only the numbers that follow are counted (Chapter 1.6).

9. B — 4 + 4 + 4 + 4 + 4. Multiplication 5 × 4 means "five groups of four," which equals 4 + 4 + 4 + 4 + 4 = 20. The repeated-addition form is the exact equivalent of multiplication. The other options (5 + 4 = 9; 54 as a number; 5 × 5 × 4 = 100) all produce different values (Chapter 4.1).

10. D — 3/9. The thirds-and-ninths family of equivalent fractions: 1/3 = 3/9. Splitting each third into three smaller equal pieces produces ninths, and 3 of those ninths equal 1/3. Verify: 1 × 3 = 3 and 3 × 3 = 9, giving 3/9. The other options (1/6, 3/1, 1/9) all represent different amounts (Chapter 2.3).

11. A — The correct answer is A. Compare 814 and 781 starting from the hundreds place: 8 > 7, so 814 is already greater than 781 just from the hundreds place. The "greater than" symbol (>) opens toward the larger number on the left. Option B (=) is incorrect because the numbers have different hundreds digits (8 vs. 7). Option C (<) is incorrect because 814 is not less than 781. Option D (≤) is incorrect because

this symbol means "less than or equal to," but 814 is greater than 781. Always compare place by place starting from the leftmost (Chapter 1.4).

12. D — 365. Subtract using the standard algorithm: 612 − 247 = 365. Ones: 2 < 7, regroup. 12 − 7 = 5. Tens: 0 < 4, regroup again. 10 − 4 = 6. Hundreds: 5 − 2 = 3. Estimation check: 612 − 250 = 362, close to 365. This tests subtraction with two regroupings (Chapter 3.3).

13. B — 905. Count the base-ten blocks: 9 hundred-flats = 900; 0 ten-rods = 0; 5 unit-cubes = 5. Total: 900 + 0 + 5 = 905. The zero in the tens place is essential — it acts as a placeholder showing there are no tens. Without it, the number would incorrectly read as 95 (Chapter 1.2).

14. A — $11.15. Add Owen's money: 4 toonies = $8.00; 2 loonies = $2.00; 4 quarters = $1.00; 3 nickels = $0.15. Total: $8.00 + $2.00 + $1.00 + $0.15 = $11.15. Sort coins from largest to smallest denomination before adding to reduce counting errors (Chapter 5.2).

15. C — 72. The pattern decreases by 8 each step: 96, 88, 80, 72, 64, 56. To verify: 88 − 80 = 8, 64 − 56 = 8, all consistent. The missing term between 80 and 64 is 80 − 8 = 72. This is a shrinking pattern with constant negative growth (Chapter 6.2).

16. B — Start at 1 and multiply by 3 each time. The pattern values are 1, 3, 9, 27, 81 — each term is 3 times the previous (1 × 3 = 3, 3 × 3 = 9, 9 × 3 = 27, 27 × 3 = 81). This is a multiplicative pattern, not additive. The differences grow (2, 6, 18, 54), confirming the rule is multiplication by 3 (Chapter 6.3).

17. D — 7. Solve 6 × n = 42 by thinking: "6 times what equals 42?" From the 6 times table: 6 × 7 = 42, so n = 7. Check by substituting: 6 × 7 = 42 ✓. Either think of the multiplication fact or use the inverse: n = 42 ÷ 6 = 7 (Chapter 7.4).

18. C — 65. Trace the code step by step: Start at 60. Step 1: 60 − 15 = 45. Step 2: 45 + 25 = 70. Step 3: 70 − 5 = 65. Always write down the running value after each instruction rather than tracking mentally. This is a sequential code from Chapter 8.2.

19. A — 40 ÷ 8 = 20 ÷ 4. Compute both sides: 40 ÷ 8 = 5 and 20 ÷ 4 = 5. Both sides equal 5, so the equation is TRUE. The other options are all false: 13 × 2 = 26 ≠ 15; 9 + 4 = 13 ≠ 36; 20 − 10 = 10 ≠ 2. The equals sign requires both sides to have the same value (Chapter 7.2).

20. B — 9 stickers. Use the 1-to-1 ratio: 1 sticker per book × 9 books = 9 stickers. This is a basic ratio-application problem from Chapter 4.6 — even when the ratio is 1-to-1, identifying the relationship explicitly helps students apply the concept to harder ratios later.

21. B — 8 students. Read the bar graph: the bar above "Orchestra" reaches the value 8 on the y-axis scale. Always trace from the top of the bar horizontally to the y-axis to read precise values rather than estimating by eye (Chapter 9.5).

22. C — 28 cups. Read the pictograph: Saturday's row has 7 cup icons. The key states each icon = 4 cups, so multiply: 7 × 4 = 28 cups. Many-to-one correspondence means each picture represents more than one item — always check the key (Chapter 9.4).

23. A — 11. Add all values: 12 + 8 + 15 + 11 + 9 = 55. Divide by the number of values: 55 ÷ 5 = 11. The mean is 11, representing the typical value in the data set. Always count the number of values carefully before dividing the sum (Chapter 10.1).

24. D — 5. Count how many times each value appears: 5 appears 4 times; 10 appears 3 times; 7 and 8 each appear once. The value that appears most often is 5. The mode is the most frequent value, not the largest — careful counting determines the mode (Chapter 10.2).

25. B — Likely. The jar contains 7 white candies out of 10 total (7 white + 3 brown). More than half the candies are white, so drawing white is likely (probable but not certain). The other options don't fit: "certain" would require all white; "impossible" would require zero white; "unlikely" would require less than half (Chapter 10.4).

26. C — Adventure. Read the frequency table values: Mystery = 12, Adventure = 15, Fantasy = 9, Historical = 4. The largest value is 15, which is Adventure. The genre with the most votes is the one with the largest frequency (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. D — 10 students. Read the bar graph: Choir = 6 students, Solo Lessons = 4 students. Add: 6 + 4 = 10 students. The phrase "either ... or" in this context means the total of both categories combined. This is a Level-2 graph-reading task from Chapter 10.3.

29. B — 95 cookies. Add the cookies baked by all 4 volunteers: 22 + 18 + 30 + 25 = 95 cookies. Verify sequentially: 22 + 18 = 40; 40 + 30 = 70; 70 + 25 = 95. Multi-row table summations require careful sequential addition (Chapter 9.3).

30. A — Impossible. The spinner has 4 sections numbered only 1, 2, 3, 4. There is no section numbered 5, so spinning a 5 cannot happen — it is impossible. "Impossible" describes events with zero chance of occurring (Chapter 10.4).

31. D — 8 edges. A square pyramid has 8 edges total: 4 around the square base + 4 edges that rise from each base corner to the apex. From the Chapter 11.2 reference table: square pyramid = 5 faces, 8 edges, 5 vertices.

32. A — Cube. A cube has 6 faces, 12 edges, and 8 vertices, with all 6 faces identical squares of the same size. A rectangular prism also has 6 faces / 12 edges / 8 vertices but its faces are not all the same — they come in three pairs of different sizes (Chapter 11.1).

33. B — 26 cm. Perimeter of a rectangle = 2 × (length + width) = 2 × (9 + 4) = 2 × 13 = 26 cm. Or add all four sides: 9 + 4 + 9 + 4 = 26 cm. The shortcut formula is faster than adding all sides individually (Chapter 13.2).

34. C — East. A quarter-turn rotates 90 degrees. Two right quarter-turns equal a half-turn (180°), reversing direction. Starting facing west, a half-turn produces facing east. The cardinal direction cycle clockwise: West → North (1st right turn) → East (2nd right turn). Final direction: east (Chapter 12.3).

35. A — Metres. A tall office building is typically 50–300 metres tall — firmly in the metre range. Centimetres are too small (a 1 cm building wouldn't be a building); millimetres are even smaller; grams measure mass, not height. Only metres is appropriate for the height of a building (Chapter 13.1).

36. D — 7:20. The hour hand sits between the 7 and the 8, closer to the 7 — so the hour is 7 (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 7:20 (Chapter 14.1).

37. B — 1 hour 25 minutes. From 2:50 PM to 3:50 PM is 1 hour. From 3:50 PM to 4:15 PM is 25 minutes (3:50 to 4:00 is 10 minutes; 4:00 to 4:15 is 15 minutes; 10 + 15 = 25). Total elapsed time: 1 hour + 25 minutes = 1 hour 25 minutes (Chapter 14.3).

38. C — 35 square centimetres. The rectangle is 5 cm wide and 7 cm tall. Area = length × width = 5 × 7 = 35 square centimetres. Or count the unit squares: 5 columns × 7 rows = 35 squares. Area is measured in square units (cm^2) — the small "2" must be included (Chapter 14.5).

39. D — 4,000 mL. The relationship: 1 litre = 1,000 millilitres. So 4 litres = 4 × 1,000 = 4,000 mL. The other options (40, 400, 40,000) represent different amounts. Always apply the conversion factor 1,000 when moving between litres and millilitres (Chapter 13.4).

40. C — 54 cm. A regular hexagon has 6 equal sides. Perimeter = 6 × side length = 6 × 9 = 54 cm. Or add all six sides: 9 + 9 + 9 + 9 + 9 + 9 = 54 cm. The multiplication shortcut works for any regular polygon — multiply the number of sides by the side length (Chapter 13.2).