PRACTICE EXAM 7: EQAO GRADE 3 MATH SIMULATION (40 QUESTIONS)

STAGE 1 — Questions 1–10

1. A hockey team scored 245 goals last season. This season they scored 168 more goals than last season. How many goals did the team score this season?

A. 413

B. 77

C. 303

D. 423

2. What is the value of the digit 4 in the number 942?

A. 4

B. 400

C. 40

D. 4,000

3. Round the number 716 to the nearest hundred.

A. 800

B. 700

C. 720

D. 710

4. Lila bought a sandwich for $4.50 and a juice for $1.75. She paid with a $10 bill. How much change did Lila receive?

A. $6.25

B. $4.50

C. $5.75

D. $3.75

5. A pizza is cut into 8 equal slices. Three slices are eaten. What fraction of the pizza remains?

A. 3/8

B. 8/3

C. 5/8

D. 5/3

6. Skip count by 25s starting from 100. What is the fourth number you say?

A. 175

B. 200

C. 150

D. 225

7. A school has 380 students. 145 of them are in Grades 1-3. The rest are in Grades 4-8. How many students are in Grades 4-8?

A. 235

B. 525

C. 145

D. 245

8. Which expression has the same value as 3×9?

A. $3 + 9$

B. $9 - 3$

C. 39

D. $9 + 9 + 9$

9. A garden has 30 carrots. The gardener pulls them up in equal bundles of 5. How many bundles does the gardener make?

A. 5 bundles

B. 6 bundles

C. 25 bundles

D. 35 bundles

10. Which fraction is the smallest?

A. 1/3

B. 1/4

C. 1/5

D. 1/8

STAGE 2 — Questions 11–20

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

427 ___ 472

A. >

B.

C. =

D. ≠ and >

12. Marco has 2 toonies, 4 loonies, 3 quarters, and 5 dimes. How much money does Marco have in total?

A. $9.25

B. $8.00

C. $8.50

D. $9.25 plus 25¢

(Note: option A and option D may need adjustment — see post-batch review.)

Actually let me rewrite option D for clarity:

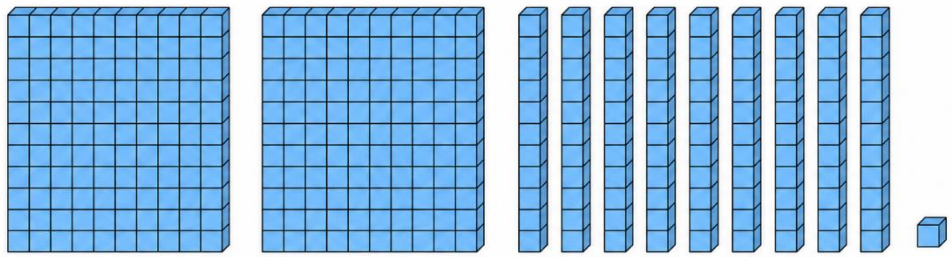
A. $9.25

B. $8.00

C. $8.50

D. $9.75

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



A. 746

B. 764

C. 674

D. 647

14. What is 70 ÷ 10?

A. 80

B. 700

C. 7

D. 17

15. Find the missing number in this pattern: 88, 80, ___ , 64, 56, 48.

A. 76

B. 72

C. 74

D. 70

16. What is the rule for this pattern: 11, 22, 33, 44, 55, 66 ?

A. Start at 11 and add 10 each time

B. Start at 11 and multiply by 2 each time

C. Start at 11 and subtract 11 each time

D. Start at 11 and add 11 each time

17. Solve for n in the equation: $n - 22 = 49$.

A. 27

B. 22

C. 71

D. 49

18. A robot starts at 100. It follows this code:

REPEAT 4 TIMES: Subtract 15.

What is the final value?

A. 40

B. 60

C. 45

D. 50

19. Which equation is TRUE?

A. $14 - 7 = 7 \times 7$

B. $9 + 6 = 9 \times 6$

C. $5 \times 4 = 5 + 5 + 5 + 5 + 4$

D. $24 \div 4 = 12 \div 2$

20. A bookshop sells comic books for $3 each. Olive wants to buy 6 comic books. She has $20. Does she have enough, and how much will she spend?

A. Yes — she will spend $20

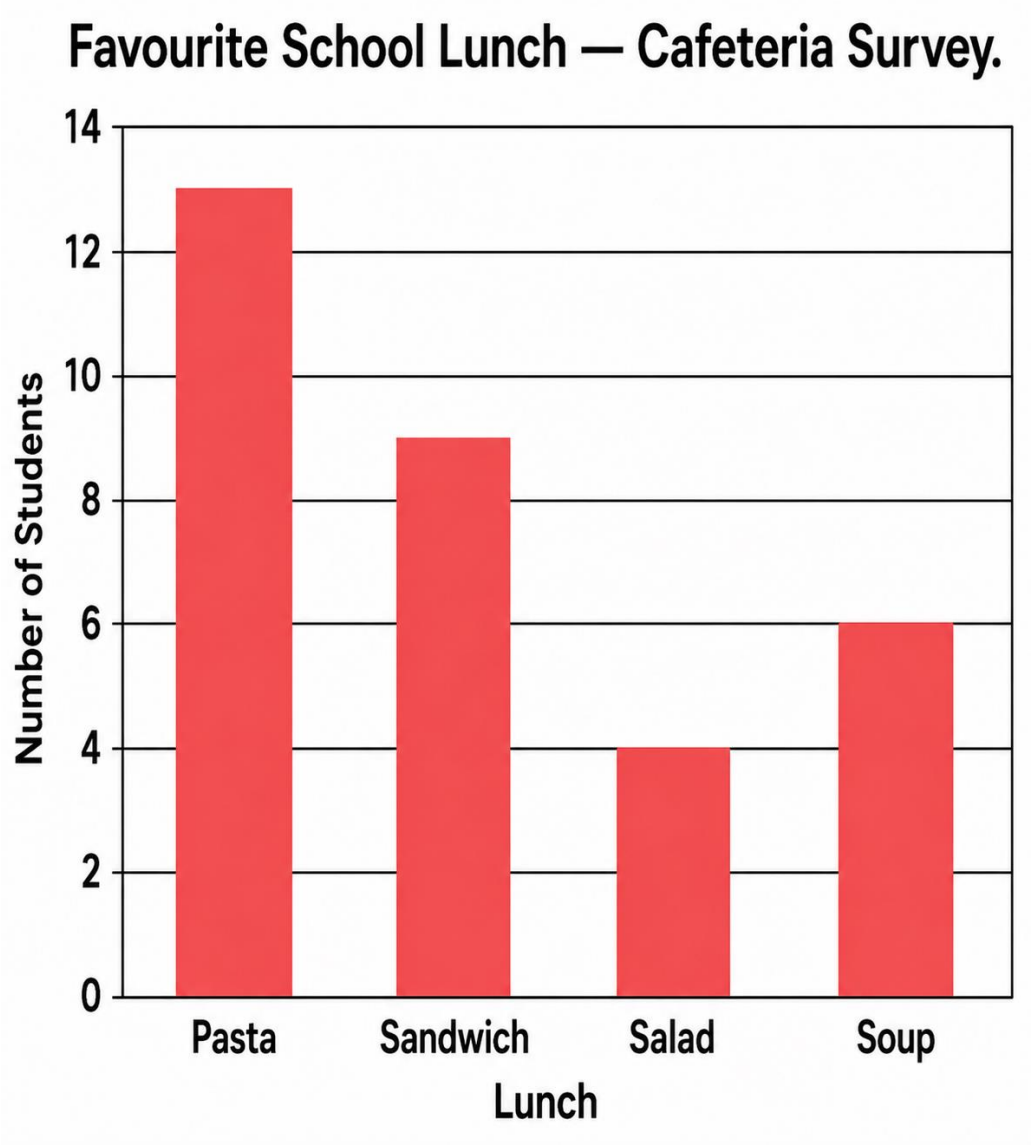
B. Yes — she will spend $18

C. No — she will spend $24

D. No — she will spend $30

STAGE 3 — Questions 21–30

21. Look at the bar graph below. Which lunch was chosen by the most students?



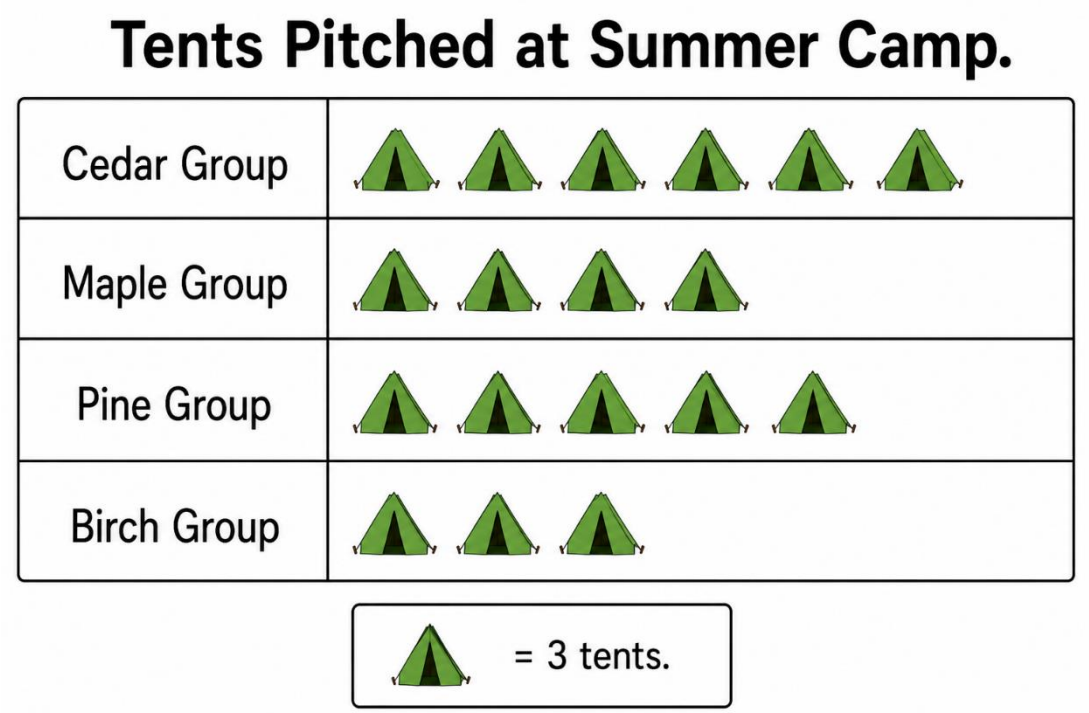
A. Pasta

B. Sandwich

C. Salad

D. Soup

22. Look at the pictograph below. Each tent icon stands for 3 tents pitched. How many tents did the Maple Group pitch?



A. 6 tents

B. 9 tents

C. 12 tents

D. 15 tents

23. Find the mean of this data set: 12, 8, 15, 10, 5.

A. 12

B. 8

C. 5

D. 10

24. Find the mode of this data set: 2, 7, 9, 7, 5, 9, 7, 3.

A. 9

B. 7

C. 5

D. 3

25. A bag contains 1 red marble and 19 blue marbles. Drawing a red marble is:

A. Unlikely

B. Likely

C. Equally likely

D. Certain

26. Look at the frequency table below. How many students chose either pizza or burgers?

Favourite Fast Food

Food	Number of Students
Pizza	14
Burgers	11
Tacos	6
Sushi	4

A. 14 students

B. 11 students

C. 35 students

D. 25 students

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

A. Certain

B. Impossible

C. Equally likely to landing on tails

D. Likely

28. Look at the bar graph in Figure PQ-2 again. How many more students chose pasta than soup?

A. 13 students

B. 7 students

C. 6 students

D. 19 students

29. The table below shows the number of cookies sold at a bake sale each day. What is the total number of cookies sold over all 5 days?

Cookies Sold at Bake Sale.

Day	Cookies Sold
Monday	18
Tuesday	22
Wednesday	15
Thursday	12
Friday	33

A. 100 cookies

B. 90 cookies

C. 110 cookies

D. 95 cookies

30. A spinner has 5 equal sections numbered 1 through 5. What is the probability of spinning a number less than 6?

A. Impossible

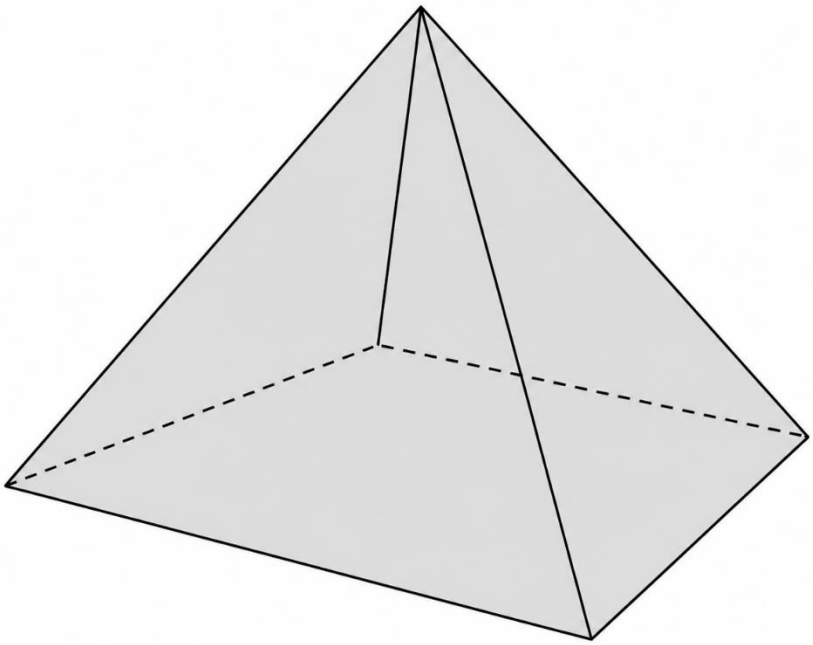
B. Unlikely

C. Equally likely

D. Certain

STAGE 4 — Questions 31–40

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



A. 4 faces

B. 6 faces

C. 5 faces

D. 8 faces

32. Which 3D shape has 0 vertices and 2 curved circular edges?

A. Cylinder

B. Cone

C. Cube

D. Sphere

33. A rectangle has a length of 10 cm and a width of 7 cm. What is its perimeter?

A. 17 cm

B. 70 cm

C. 34 cm

D. 24 cm

34. A character is facing North. The character makes a half-turn, then a quarter-turn to the right. Which direction is the character facing now?

A. South

B. West

C. East

D. North

35. Which unit is best for measuring the mass of a backpack with school books inside?

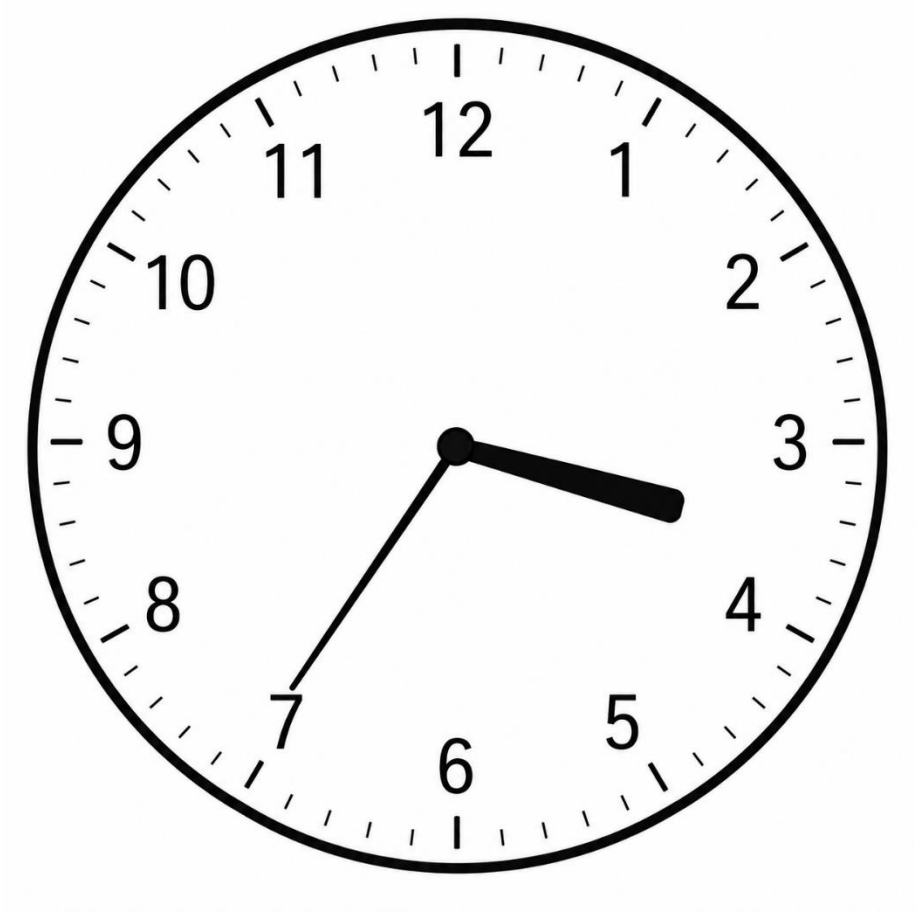
A. Grams

B. Litres

C. Kilograms

D. Millimetres

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



A. 3:35

B. 7:15

C. 4:35

D. 3:07

37. A movie starts at 6:50 PM and ends at 8:25 PM. How long is the movie?

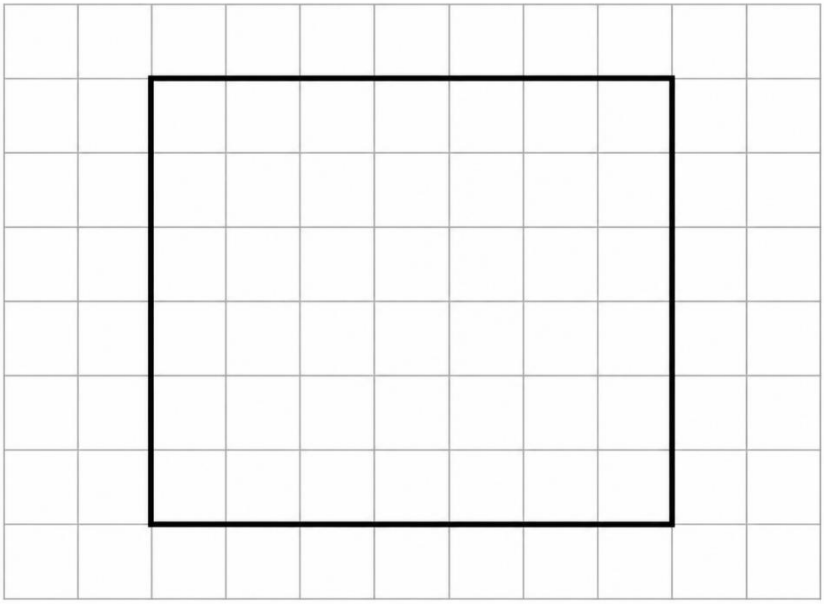
A. 1 hour 25 minutes

B. 1 hour 35 minutes

C. 35 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. 30 square centimetres

D. 35 square centimetres

39. A length of ribbon is 4 metres long. How many centimetres is that?

A. 40 cm

B. 4,000 cm

C. 400 cm

D. 0.04 cm

40. A regular triangle (equilateral triangle) has 3 sides of equal length. If each side is 9 cm, what is the perimeter?

A. 27 cm

B. 12 cm

C. 18 cm

D. 36 cm

Practice Exam 7: Answer Key and Explanations

1. A — 413. Add the two amounts using the standard algorithm: 245 + 168 = 413. Ones: 5 + 8 = 13 (write 3, carry 1). Tens: 1 + 4 + 6 = 11 (write 1, carry 1). Hundreds: 1 + 2 + 1 = 4. The phrase "168 more goals than last season" signals addition — adding the increase to the original (curriculum expectation B2.5).

2. C — 40. The digit 4 sits in the tens place of the number 942. Its value is 4 × 10 = 40. Always distinguish between the digit (4) and the digit's value (40) — same digit, different amount depending on position. This is a core place-value concept from Chapter 1.2.

3. B — 700. To round 716 to the nearest hundred, look at the digit in the tens place: 1. Since 1 is less than 5, round down. The number 716 rounds down to 700. The midpoint between 700 and 800 is 750, and 716 is before that midpoint — confirming the rounding decision (Chapter 1.5).

4. D — $3.75. First find the total cost: $4.50 + $1.75 = $6.25. Then find the change: $10.00 − $6.25 = $3.75. Multi-item transactions always require adding the prices first, then subtracting from the payment (Chapter 5.4). Estimation check: $10 − $6 = $4, close to $3.75.

5. C — 5/8. The pizza has 8 equal slices. Three were eaten, so 8 − 3 = 5 slices remain. The fraction representing the remaining portion is 5/8. Always identify what the question asks for — "remain" requires subtracting the eaten portion from the whole (Chapter 2.1).

6. B — 200. Skip count by 25s starting from 100: 100 is the start, then 125 (1st), 150 (2nd), 175 (3rd), 200 (4th). The fourth number said after 100 is 200. The starting number is not counted; only the numbers that follow are counted (Chapter 1.6).

7. A — 235. Subtract the Grades 1-3 students from the total: 380 − 145 = 235. Ones: 0 < 5, regroup. 10 − 5 = 5. Tens: 7 − 4 = 3. Hundreds: 3 − 1 = 2. Estimation check: 380 − 145 ≈ 380 − 150 = 230, close to 235 (Chapter 3.3).

8. D — 9 + 9 + 9. Multiplication 3 × 9 means "three groups of nine," which equals 9 + 9 + 9 = 27. The repeated-addition form is the exact equivalent of multiplication. The other options (3 + 9 = 12; 9 − 3 = 6; 39 as a number) all produce different values (Chapter 4.1).

9. B — 6 bundles. Divide the total carrots by the bundle size: 30 ÷ 5 = 6 bundles. This is grouping division — separating 30 carrots into bundles of 5 produces 6 bundles. The related multiplication: 6 × 5 = 30 confirms the answer (Chapter 4.4).

10. D — 1/8. When comparing unit fractions (numerator 1), the fraction with the largest denominator is the smallest — because dividing a whole into more parts produces smaller pieces. Comparing: 1/3 ≈ 0.33, 1/4 = 0.25, 1/5 = 0.2, 1/8 = 0.125. The smallest is 1/8 (Chapter 2.1).

11. B — <. Compare 427 and 472 starting from the hundreds place: 4 = 4 (tied). Move to the tens place: 2 < 7, so 427 is less than 472. The "less than" symbol (<) opens toward the larger number on the right. Always compare place by place starting from the leftmost (Chapter 1.4).

12. D — $9.75. Add Marco's money: 2 toonies = $4.00; 4 loonies = $4.00; 5 quarters = $1.25; 5 dimes = $0.50. Total: $4.00 + $4.00 + $1.25 + $0.50 = $9.75. Sort coins from largest to smallest denomination before adding to reduce counting errors (Chapter 5.2).

13. A — 746. Count the base-ten blocks: 7 hundred-flats = 700; 4 ten-rods = 40; 6 unit-cubes = 6. Total: 700 + 40 + 6 = 746. Always count hundreds first, then tens, then ones. The place-value composition: 7 hundreds + 4 tens + 6 ones = 746 (Chapter 1.3).

14. C — 7. Division 70 ÷ 10 asks "10 times what equals 70?" From the 10 times table: 10 × 7 = 70, so 70 ÷ 10 = 7. The 10 times table shortcut works in reverse for division — removing a trailing zero from the dividend gives the quotient (Chapter 4.2).

15. B — 72. The pattern decreases by 8 each step: 88, 80, 72, 64, 56, 48. To verify: 80 − 72 = 8, 72 − 64 = 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. D — Start at 11 and add 11 each time. The pattern values are 11, 22, 33, 44, 55, 66 — each term is 11 more than the previous (the 11 times table). Differences: 22 − 11 = 11, 33 − 22 = 11, all consistent. A complete pattern rule names both the starting value and the operation (Chapter 6.3).

17. C — 71. Solve n − 22 = 49 using the inverse operation: n = 49 + 22 = 71. Check by substituting: 71 − 22 = 49 ✓. The inverse of subtraction is addition. Always verify the answer by plugging it back into the original equation (Chapter 7.4).

18. A — 40. Trace the code: the loop subtracts 15 four times. Step 1: 100 − 15 = 85. Step 2: 85 − 15 = 70. Step 3: 70 − 15 = 55. Step 4: 55 − 15 = 40. Or compute directly: 4 × 15 = 60 subtracted from 100 gives 100 − 60 = 40 (Chapter 8.2).

19. D — 24 ÷ 4 = 12 ÷ 2. Compute both sides: 24 ÷ 4 = 6 and 12 ÷ 2 = 6. Both sides equal 6, so the equation is TRUE. The other options are false: 14 − 7 = 7 ≠ 49; 9 + 6 = 15 ≠ 54; 5 × 4 = 20 but 5 + 5 + 5 + 5 + 4 = 24 (Chapter 7.2).

20. B — Yes — she will spend $18. Multiply: 6 comic books × $3 each = $18. Olive has $20 and the cost is $18, so $20 > $18 means she has enough money. The change she would receive is $20 − $18 = $2. This is a two-step modelling problem from Chapter 8.4.

21. A — Pasta. Read the bar graph values: Pasta = 13, Sandwich = 9, Salad = 4, Soup = 6. The tallest bar represents the most students, which is Pasta with 13. Always trace from the top of each bar horizontally to the y-axis to read precise values (Chapter 9.5).

22. C — 12 tents. Read the pictograph: the Maple Group row has 4 tent icons. The key states each icon = 3 tents, so multiply: 4 × 3 = 12 tents. Many-to-one correspondence means each picture represents more than one item (Chapter 9.4).

23. D — 10. Add all values: 12 + 8 + 15 + 10 + 5 = 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. B — 7. Count how many times each value appears: 7 appears 3 times; 9 appears 2 times; 2, 5, and 3 each appear once. The value that appears most often is 7. The mode is the most frequent value, not the largest — careful counting determines the mode (Chapter 10.2).

25. A — Unlikely. The bag has only 1 red marble out of 20 total (1 red + 19 blue). Just 1 of 20 marbles is red — far less than half. So drawing a red marble is unlikely (possible but improbable). The other options don't fit: "certain" would need all red; "impossible" would need zero red; "equally likely" would need 10 each (Chapter 10.4).

26. D — 25 students. Read the frequency table: Pizza = 14, Burgers = 11. Add: 14 + 11 = 25 students. The phrase "either ... or" in this context means the total of both categories combined. Reading and combining frequency table values is a core data skill (Chapter 10.3).

27. C — 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. B — 7 students. From Figure PQ-2: Pasta = 13 students, Soup = 6 students. Subtract: 13 − 6 = 7 students. The phrase "how many more" signals subtraction — finding the difference between two known values. This is a Level-2 graph-reading task from Chapter 10.3.

29. A — 100 cookies. Add the cookies sold each day: 18 + 22 + 15 + 12 + 33 = 100 cookies. Verify sequentially: 18 + 22 = 40; 40 + 15 = 55; 55 + 12 = 67; 67 + 33 = 100. Multi-row table summations require careful sequential addition (Chapter 9.3).

30. D — Certain. The spinner has 5 sections numbered 1 through 5. Every possible spin lands on a number less than 6 (since the highest number on the spinner is 5). The event covers every possible outcome, so it must happen — certain (Chapter 10.4).

31. C — 5 faces. A square pyramid has 1 square base + 4 triangular faces = 5 faces total. From the Chapter 11.2 reference table: square pyramid = 5 faces, 8 edges, 5 vertices. Count faces systematically: the single base plus each of the four triangular sides.

32. A — Cylinder. A cylinder has 0 vertices (no corner points where edges meet) and 2 curved circular edges (where each flat circular base meets the curved side surface). A cone has 1 vertex (the apex). A cube has 8 vertices and 12 straight edges. A sphere has 0 edges (Chapter 11.2).

33. C — 34 cm. Perimeter of a rectangle = 2 × (length + width) = 2 × (10 + 7) = 2 × 17 = 34 cm. Or add all four sides: 10 + 7 + 10 + 7 = 34 cm. The shortcut formula is faster than adding all sides individually, especially for larger numbers (Chapter 13.2).

34. B — West. The correct answer is B. A half-turn rotates 180 degrees, reversing direction. Starting facing north, a half-turn produces facing south. Then a quarter-turn right rotates 90° clockwise from south to west. Option A (South) is the position after only the half-turn, ignoring the quarter-turn. Option C (East) results from starting at south instead of north (south → north → east). Option D (North) is the starting position with no turns applied.

35. C — Kilograms. A backpack with school books inside typically weighs 3–8 kilograms — firmly in the kilogram range. Grams are too small (a single pencil is just a few grams); litres measure capacity, not mass; millimetres measure length. Only kilograms is appropriate (Chapter 13.3).

36. A — 3:35. The hour hand sits between the 3 and the 4, closer to the 3 — so the hour is 3 (the smaller of the two numbers it sits between). The minute hand points to the 7, which equals 35 minutes past the hour ($7 \times 5 = 35$). The time is 3:35 (Chapter 14.1).

37. B — 1 hour 35 minutes. From 6:50 PM to 7:50 PM is 1 hour. From 7:50 PM to 8:25 PM is 35 minutes. Total elapsed time: 1 hour + 35 minutes = 1 hour 35 minutes. Break elapsed-time calculations into whole-hour portions plus the remaining minutes (Chapter 14.3).

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

39. C — 400 cm. The relationship: 1 metre = 100 centimetres. So 4 metres = $4 \times 100 = 400$ cm. The other options (40, 4,000, 0.04) represent different amounts. Always apply the conversion factor 100 when moving between metres and centimetres (Chapter 13.1).

40. A — 27 cm. A regular triangle (equilateral) has 3 equal sides. Perimeter = 3 × side length = $3 \times 9 = 27$ cm. Or add all three sides: $9 + 9 + 9 = 27$ cm. The multiplication shortcut works for any regular polygon — multiply the number of sides by the side length (Chapter 13.2).