Mathematics Practice Paper

Answer Key

A. Answer the following. (2 marks @ 20 marks)

1. $5\frac{1}{6}$ — 2 marks
2. $\frac{47}{9}$ — 2 marks
3. $6\frac{1}{4}$ (accept $6\frac{25}{100}$) — 2 marks
4. 0.09 , 0.109 , 0.9 — 2 marks
5. $\frac{23}{4}$, $5\frac{1}{2}$, 5.4 — 2 marks
6. $\frac{9}{25}$, $\frac{2}{5}$, 0.42 — 2 marks
7. 365000 — 2 marks
8. 12 — 2 marks
9. 2 km 70 m — 2 marks
10. 33 — 2 marks

Section A total: 20 marks

B. Calculate. (2 marks @ 20 marks)

1. $5\frac{3}{4}$ (accept $5\frac{6}{8}$) — 2 marks
2. $2\frac{2}{7}$ — 2 marks
3. $\frac{5}{6}$ — 2 marks
4. $\frac{4}{5}$ (accept 0.8) — 2 marks
5. 1000 — 2 marks
6. 2000 — 2 marks
7. 392 — 2 marks
8. 16 — 2 marks
9. 16 — 2 marks
10. 9 — 2 marks

Section B total: 20 marks

C. Find the perimeters of the following shaded shapes. (2 marks @ 4 marks)

1. 76 cm — 2 marks

   The shape is an L formed from a 22 cm × 16 cm rectangle with a 9 cm × 7 cm rectangle removed from one corner. The perimeter is 13 + 7 + 9 + 9 + 22 + 16 = 76 cm. (Equivalently, a corner cut does not change the perimeter of the original rectangle: 2 × (22 + 16) = 76 cm.)

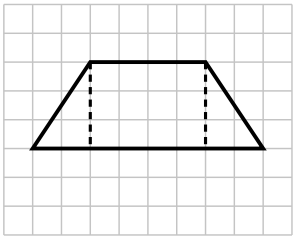
2. 40 cm — 2 marks

   Add all outer sides: 8 + 5 + 4 + 14 + 4 + 5 = 40 cm.

Section C total: 4 marks

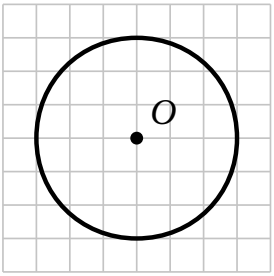
D. Drawing. (2 marks @ 4 marks)

1. Draw two vertical dotted lines from the ends of the top side down to the bottom side. This forms a rectangle of 4 units by 3 units in the middle and a right-angled triangle of base 2 units and height 3 units on each side. 2 marks



Other correct dissections into 1 rectangle and 2 identical right-angled triangles may be accepted if the three parts are clearly shown and match the required shapes.

2. The circle is centred at O and has radius 3 grid units. It should pass through the grid intersections 3 units left, right, above and below O (and should be drawn with a compass if possible). 2 marks



Section D total: 4 marks

E. Multiple Choice. (2 marks @ 12 marks)

1. **C** (A triangular prism has 6 vertices, 9 edges and 5 faces.) 2 marks
2. **B** 40.06 2 marks
3. **D** (A, B and C all equal 2.25; $2\frac{2}{5} = 2.4$) 2 marks
4. **C** ($\frac{5}{6} = 0.833\ldots$, which is greater than 0.81, 0.8 and $\frac{7}{9} \approx 0.778$) 2 marks
5. **D** (47 is prime; $27 = 3 \times 9$, $39 = 3 \times 13$, $51 = 3 \times 17$) 2 marks
6. **B** (A cut parallel to the square base of a square pyramid gives a square.) 2 marks

Section E total: 12 marks

F. Data Handling. (2 marks @ 10 marks)

Readings from the bar chart: Amy 54, Ben 30, Chris 72, Dora 18, Eva 48. Each small unit represents 2 stickers.

1. 2 2 marks
2. Eva (72 − 24 = 48) 2 marks
3. 3 (54 ÷ 18 = 3) 2 marks
4. 78 (30 + 48 = 78) 2 marks
5. 180 ((72 + 18) × 2 = 180) 2 marks

Section F total: 10 marks

G. Give answers only. (3 marks @ 15 marks)

1. $2\frac{5}{8}$ kg (accept $\frac{21}{8}$ kg) 3 marks
2. 9:15 a.m. on Saturday (accept 09:15 Saturday) 3 marks
3. 7 glasses 3 marks
4. 70 cm 3 marks

*5. 24 cm 3 marks

Section G total: 15 marks

H. Solve the problems and show all steps of calculation. (5 marks @ 15 marks)

1. $3\frac{1}{2} - 1\frac{3}{4} + 2\frac{1}{4}$ 5 marks

$= 3\frac{2}{4} - 1\frac{3}{4} + 2\frac{1}{4}$

$= 2\frac{6}{4} - 1\frac{3}{4} + 2\frac{1}{4}$

$= 1\frac{3}{4} + 2\frac{1}{4}$

$= 3\frac{4}{4}$

= **4 L**

Award marks for a correct method with a correct final answer. Other equivalent working is accepted.

2. Perimeter of the playground = \$2100 ÷ \$15 5 marks

= 140 m

2 × (40 m + width) = 140 m

40 m + width = 70 m

Width = 70 m − 40 m

= **30 m**

Award marks for a correct method with a correct final answer.

3. $2\frac{4}{5}$ m = 2.8 m 5 marks

Length used = 3.6 m + 2.8 m = 6.4 m

Length left = 12.5 m − 6.4 m

= **6.1 m**

Award marks for a correct method with a correct final answer. Equivalent working with fractions is accepted.

Section H total: 15 marks

Marks summary

A 20 + B 20 + C 4 + D 4 + E 12 + F 10 + G 15 + H 15 = **100 marks**