Mathematics Practice Paper

Level Two — Answer Key

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

1. $5\frac{7}{8}$ — 2 marks
2. $\frac{61}{7}$ — 2 marks
3. $4\frac{3}{8}$ (accept $4\frac{375}{1000}$) — 2 marks
4. 0.9 , $\frac{19}{20}$, $\frac{5}{3}$ — 2 marks
5. 1.8 , $1\frac{7}{9}$, $\frac{7}{4}$ — 2 marks
6. 0.54 , $\frac{11}{20}$, $\frac{5}{9}$ — 2 marks
7. 3980000 — 2 marks
8. 240 — 2 marks
9. 4 km 5 m — 2 marks
10. 31 — 2 marks

Section A total: 20 marks

B. Calculate. (2 marks @ 20 marks)

1. $6\frac{7}{12}$ — 2 marks
2. $4\frac{8}{15}$ — 2 marks
3. $4\frac{5}{12}$ — 2 marks
4. $1\frac{1}{20}$ — 2 marks
5. 1500 — 2 marks
6. 72 — 2 marks
7. 504 — 2 marks
8. 24 — 2 marks
9. 26 — 2 marks
10. 32 — 2 marks

Section B total: 20 marks

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

1. 74 cm — 2 marks

   The shape is an 18 cm × 12 cm rectangle with an 8 cm × 7 cm rectangular notch cut from one side (not a corner). Adding all outer sides gives 18 + 12 + 5 + 7 + 8 + 7 + 5 + 12 = 74 cm. Equivalently, the original perimeter is 2 × (18 + 12) = 60 cm, and the notch adds twice its depth: 60 + 2 × 7 = 74 cm.

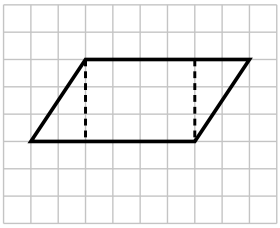
2. 72 cm — 2 marks

   The shape is a 20 cm × 11 cm rectangle with a 6 cm × 5 cm rectangular notch cut from one side. Adding all outer sides gives 20 + 11 + 10 + 5 + 6 + 5 + 4 + 11 = 72 cm. Equivalently, 2 × (20 + 11) + 2 × 5 = 72 cm.

Section C total: 4 marks

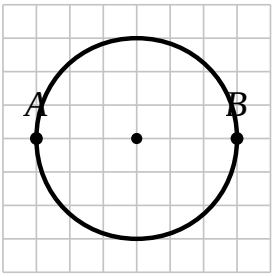
D. Drawing. (2 marks @ 4 marks)

1. Draw two vertical dotted lines from the ends of the shorter horizontal sides of the parallelogram (the left end of the top side, and the right end of the bottom side) to meet the opposite 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 centre of the circle is the midpoint of AB. AB is 6 grid units long, so the radius is 3 grid units. The circle should pass through A and B (and should be drawn with a compass if possible). 2 marks



Section D total: 4 marks

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

1. **B** (A square pyramid has 5 vertices, 8 edges and 5 faces.) 2 marks
2. **B** 305.07 2 marks
3. **D** (A, B and C all equal 3.75; $3\frac{2}{5} = 3.4$) 2 marks
4. **D** (1.15 is greater than $\frac{8}{7} \approx 1.143$, 1.1 and $\frac{12}{11} \approx 1.091$) 2 marks
5. **C** (89 is prime; $91 = 7 \times 13$, $87 = 3 \times 29$, $93 = 3 \times 31$) 2 marks
6. **A** (A cut parallel to the base of a triangular pyramid gives a triangle.) 2 marks

Section E total: 12 marks

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

Readings from the bar chart: Faith 36, Gary 52, Helen 20, Ivan 60, Jenny 40. Each small unit represents 4 books.

1. 4 2 marks
2. Faith (52 − 16 = 36) 2 marks
3. 3 (60 ÷ 20 = 3) 2 marks
4. 76 (36 + 40 = 76) 2 marks
5. 360 ((52 + 20) × 5 = 360) 2 marks

Section F total: 10 marks

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

1. $2\frac{1}{8}$ kg (accept $\frac{17}{8}$ kg) 3 marks
2. 12:15 p.m. on Friday (accept 12:15 Friday) 3 marks
3. 7 bottles 3 marks
4. 76 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. 5 marks

Water used = $2\frac{2}{5}$ L + $1\frac{3}{4}$ L

= $2\frac{8}{20}$ L + $1\frac{15}{20}$ L

= $3\frac{23}{20}$ L

= $4\frac{3}{20}$ L

$8\frac{1}{2}$ L − $4\frac{3}{20}$ L = $8\frac{10}{20}$ L − $4\frac{3}{20}$ L

= $4\frac{7}{20}$ L

$4\frac{7}{20}$ L + $3\frac{1}{5}$ L = $4\frac{7}{20}$ L + $3\frac{4}{20}$ L

= $7\frac{11}{20}$ L

= $\boxed{\mathbf{7\frac{11}{20}\ L}}$

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

2. 5 marks

Length of fence = \$1800 ÷ \$15

= 120 m

Perimeter of the garden = 120 m + 4 m

= 124 m

2 × (28 m + width) = 124 m

28 m + width = 62 m

Width = 62 m − 28 m

= $\boxed{\mathbf{34\ m}}$

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

3. 5 marks

Number of oranges bought = 8 × 24 = 192

Number sold = $\frac{5}{8}$ × 192 = 120

Number left = 192 − 120 − 16

= $\boxed{\mathbf{56}}$

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

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**