

WA2 Practice Paper

Fractions, angles and data interpretation

30 marks | Suggested time: 45 minutes

Name: Class: Date:

Answer all questions. Show your working for Sections B and C. Calculators are not allowed. Give fractions in their simplest form unless stated otherwise.

School WA topic coverage may differ. These are original practice questions. Worked solutions follow the question paper.

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Section A: Multiple Choice (6 marks)

Choose one option and write its number in the answer space.

1. Which fraction is equivalent to $\frac{3}{5}$?

(1) $\frac{6}{15}$

(2) $\frac{9}{15}$

(3) $\frac{9}{10}$

(4) $\frac{12}{25}$

Answer: [1]

2. Which fraction is the greatest?

(1) $\frac{1}{2}$

(2) $\frac{3}{4}$

(3) $\frac{2}{3}$

(4) $\frac{5}{12}$

Answer: [1]

3. Write $\frac{11}{3}$ as a mixed number.

(1) $3 \frac{1}{3}$

(2) $3 \frac{2}{3}$

(3) $4 \frac{1}{3}$

(4) $4 \frac{2}{3}$

Answer: [1]

4. How many degrees are in a quarter turn?

- (1) 45°
- (2) 90°
- (3) 180°
- (4) 360°

Answer: [1]

5. A rectangle has sides 8 cm and 5 cm. What is its perimeter?

- (1) 13 cm
- (2) 26 cm
- (3) 40 cm
- (4) 80 cm

Answer: [1]

6. A class collected 24 bottles on Monday and 36 on Tuesday. How many more bottles were collected on Tuesday?

- (1) 10
- (2) 12
- (3) 24
- (4) 60

Answer: [1]

Section B: Short Answer (12 marks)

Show your working and give units where needed.

7. Calculate $\frac{2}{3} + \frac{1}{4}$. Give your answer in its simplest form.

Answer: [2]

8. Calculate $2\frac{1}{6} - \frac{3}{4}$. Give your answer in its simplest form.

Answer: [2]

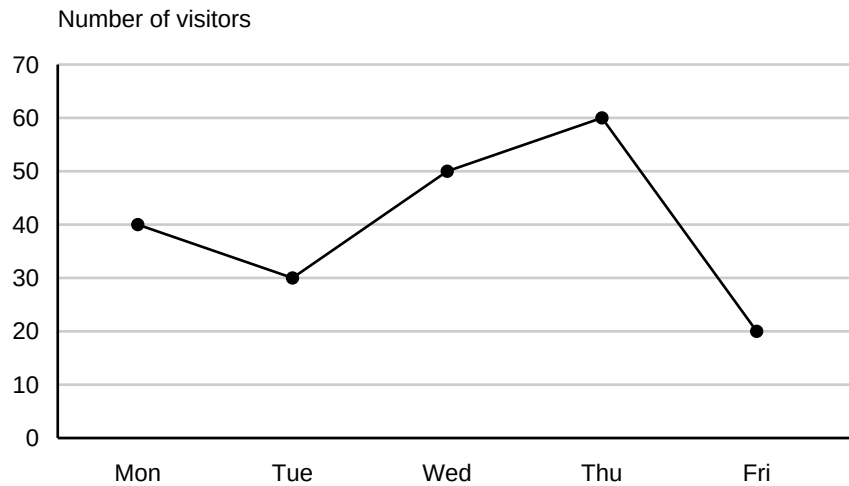
9. There are 56 pupils in a club. $\frac{3}{7}$ are girls. How many are boys?

Answer: [2]

10. A right angle is divided into two smaller angles. One is 37° . Find the other angle.

Answer: [2]

11. The line graph shows the number of visitors to a museum. On which day were there the most visitors, and how many more visitors were there than on Tuesday?



Answer: [2]

12. A ribbon is 3 m long. Siti cuts off $\frac{5}{8}$ m, then $\frac{3}{4}$ m. Find the length left as a mixed number.

Answer: [2]

Section C: Problem Sums (12 marks)

Show your working and give units where needed.

13. A baker made 96 buns. $\frac{3}{8}$ were cheese buns and $\frac{1}{4}$ were curry buns. The rest were plain

buns. (a) How many cheese buns were made? [2] (b) How many plain buns were made? [2]

Answer: [4]

14. Mei spent $\frac{2}{5}$ of her money on a book and $\frac{1}{4}$ of her money on lunch. She had \$21 left. How

much money did she have at first?

Answer: [4]

15. Tank A contains $\frac{3}{4}$ litre of water. Tank B contains twice as much water as Tank A. (a) How

much water is in Tank B? [2] (b) Water from both tanks is poured into bottles that each hold $\frac{1}{4}$

litre. How many bottles can be filled? [2]

Answer: [4]

End of question paper - Total: 30 marks

WA2 Suggested Worked Solutions

Other valid methods are accepted. Mark allocations are suggested for this practice paper.

Question 1 [1 mark]

Option 2. Multiply numerator and denominator by 3: $\frac{3}{5} = \frac{9}{15}$.

Suggested marking: 1 mark for the correct option.

Question 2 [1 mark]

Option 2. In twelfths: 6, 9, 8 and 5 twelfths. Nine twelfths is greatest.

Suggested marking: 1 mark for the correct option.

Question 3 [1 mark]

Option 2. $11 \div 3 = 3$ remainder 2, giving $3\frac{2}{3}$.

Suggested marking: 1 mark for the correct option.

Question 4 [1 mark]

Option 2. $360^\circ \div 4 = 90^\circ$.

Suggested marking: 1 mark for the correct option.

Question 5 [1 mark]

Option 2. Perimeter = $8 + 5 + 8 + 5 = 26$ cm.

Suggested marking: 1 mark for the correct option.

Question 6 [1 mark]

Option 2. $36 - 24 = 12$ bottles.

Suggested marking: 1 mark for the correct option.

Question 7 [2 marks]

Use denominator 12: $\frac{8}{12} + \frac{3}{12} = \frac{11}{12}$.

Suggested marking: 1 mark for valid working; 1 mark for the correct complete answer.

Question 8 [2 marks]

$$2 \frac{1}{6} = \frac{26}{12} ; \frac{3}{4} = \frac{9}{12} .$$

$$\frac{26}{12} - \frac{9}{12} = \frac{17}{12} = 1 \frac{5}{12} .$$

Suggested marking: 1 mark for valid working; 1 mark for the correct complete answer.

Question 9 [2 marks]

$$\text{Girls} = 56 \div 7 \times 3 = 24.$$

$$\text{Boys} = 56 - 24 = 32.$$

Suggested marking: 1 mark for valid working; 1 mark for the correct complete answer.

Question 10 [2 marks]

A right angle is 90° .

$$\text{Other angle} = 90^\circ - 37^\circ = 53^\circ.$$

Suggested marking: 1 mark for valid working; 1 mark for the correct complete answer.

Question 11 [2 marks]

Thursday had the most visitors: 60.

$$\text{Difference} = 60 - 30 = 30 \text{ visitors.}$$

Suggested marking: 1 mark for valid working; 1 mark for the correct complete answer.

Question 12 [2 marks]

$$\text{Length cut} = \frac{5}{8} + \frac{6}{8} = 1 \frac{3}{8} \text{ m.}$$

$$\text{Length left} = 3 - 1 \frac{3}{8} = 1 \frac{5}{8} \text{ m.}$$

Suggested marking: 1 mark for valid working; 1 mark for the correct complete answer.

Question 13 [4 marks]

(a) Cheese buns = $96 \div 8 \times 3 = 36$.

(b) Curry buns = $96 \div 4 = 24$.

Plain buns = $96 - 36 - 24 = 36$.

Suggested marking: Parts (a) and (b): 1 method mark and 1 answer mark each.

Question 14 [4 marks]

$$\text{Fraction spent} = \frac{8}{20} + \frac{5}{20} = \frac{13}{20}.$$

$$\text{Fraction left} = \frac{7}{20}.$$

7 units = \$21, so 1 unit = \$3.

20 units = \$60. She had \$60 at first.

Suggested marking: Up to 3 marks for the main calculation or reasoning steps; 1 mark for the correct final answer.

Question 15 [4 marks]

(a) Tank B: $\frac{3}{4} + \frac{3}{4} = 1 \frac{1}{2}$ litres.

(b) Total = $\frac{3}{4} + \frac{6}{4} = \frac{9}{4}$ litres.

Each bottle is 1 quarter litre, so 9 bottles can be filled.

Suggested marking: Parts (a) and (b): 1 method mark and 1 answer mark each.