

## Section 1 - No Resources allowed



Baldivis  
Secondary College

Name: \_\_\_\_\_

Class: \_\_\_\_\_

Time: 10 minutes

Total Mark: \_\_\_\_/10

**Answer all questions. Each question is worth one mark.**

1. Add GST (10%) to \$40:

$$\$44 \quad \checkmark$$

2. \$2.50 per litre. How much for 6 litres?

$$\$15 \quad \checkmark$$

3. A coin is tossed. What is the chance of tails?

$$Pr(\text{tails}) = \frac{1}{2} \quad \checkmark$$

4. A 6-sided die is tossed, what is
- $P(>4)$
- ?

$$Pr(>4) = \frac{2}{6} = \frac{1}{3} \quad \checkmark$$

5. What is the formula for the area of a rectangle?

$$L \times w = A \quad \checkmark$$

6. What is the formula for the area of a triangle?

$$\frac{1}{2}bh = A \quad \checkmark$$

7. What is the area of a triangle 6cm by 3cm?

$$9\text{cm}^2 \quad \checkmark$$

8. Change 40% to a fraction:

$$\frac{40}{100} = \frac{2}{5} \quad \checkmark$$

9. Which is the best buy: \$8 for 4 L or \$12 for 3 L?

$$\$8 \text{ for } 4\text{L is best buy} \\ \$2/\text{L} \quad \checkmark$$

10. If the price of petrol is \$2 per litre, how much for 50 L?

$$2 \times 50 = \$100 \quad \checkmark$$

[10 marks]

Name: \_\_\_\_\_ Class: \_\_\_\_\_ Time: 40 minutes Total Mark: \_\_\_\_/42

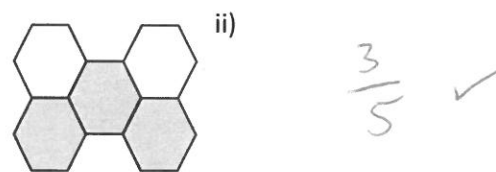
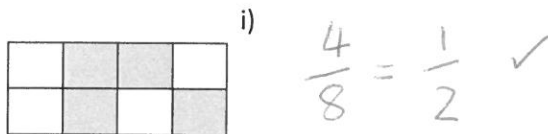
Show working and answers on this sheet. Show working in sufficient detail to support your answers. Incorrect answers without supporting reasoning may be allocated zero marks.

**Calculator Allowed**
**Question 1**
**2 marks**

 i) Write four-fifths as a fraction:  $\frac{4}{5}$  ✓

 ii) Write the following  $6\frac{1}{2}$  as words: six and a half ✓
**Question 2**
**2 marks**

What fraction is the shaded part of the whole:


**Question 3**
**2 marks**

 i) What fraction is 25c of \$2?  $\frac{1}{8}$  ✓

 ii) What fraction is 75c of \$1?  $\frac{3}{4}$  ✓
**Question 4**
**2 marks**

 i) Change  $2\frac{3}{4}$  to an improper fraction:  $\frac{11}{4}$  ✓

 ii) Change  $\frac{13}{5}$  to a mixed number:  $2\frac{3}{5}$  ✓

**Question 5****2 marks**

Calculate each of the following:

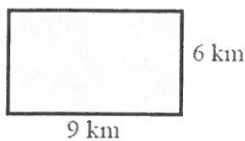
i)  $\frac{3}{4}$  of 12: 9 ✓

ii) 25% of 20: 5 ✓

**Question 6****5 marks**

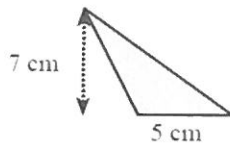
Calculate the area of the following shapes:

i)



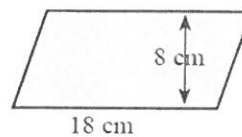
$$6 \times 9 = 54 \text{ km}^2 \quad \checkmark$$

ii)



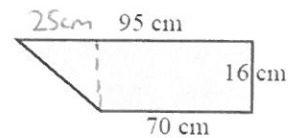
$$\frac{1}{2} \times 7 \times 5 = 17.5 \text{ cm}^2 \quad \checkmark$$

iii)



$$18 \times 8 = 144 \text{ cm}^2 \quad \checkmark$$

iv)

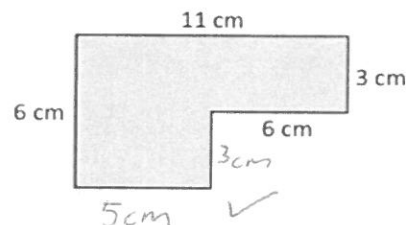


$$\begin{aligned} \frac{1}{2} \times 25 \times 16 &= 200 \text{ cm}^2 \quad \checkmark \\ 16 \times 70 &= 1120 \text{ cm}^2 \\ 200 + 1120 &= 1320 \text{ cm}^2 \quad \checkmark \end{aligned}$$

**Question 7****2 marks**

Find the perimeter of this shape.

$$11 + 6 + 5 + 3 + 6 + 3 = 34 \text{ cm} \quad \checkmark$$

**Question 8****2 marks**What is the area of a bedroom wall that is 3.4m wide by 2.4m high? Roughly how much paint is needed for two coats of paint for the wall (A litre of paint will cover 15m<sup>2</sup> on average)?

$$3.4 \times 2.4 = 8.16 \text{ m}^2 \quad \checkmark$$

$$8.16 \times 15 = 122.40 \quad \checkmark$$

**Question 9****2 marks**A rectangular paddock is 850m by 420m. What is the area of the paddock in hectares (1 hectare = 10,000m<sup>2</sup>)?

$$850 \text{ m} \times 420 \text{ m} = 357,000 \text{ m}^2 \quad \checkmark$$

$$357,000 \div 10,000 = 35.7 \text{ hectares} \quad \checkmark$$

**Question 10****3 marks**

When tossing a coin the theoretical probabilities are:

Probability of a head =  $1/2 = 0.5$       Probability of a tail =  $1/2 = 0.5$

- i) If a coin is tossed 80 times, how many heads would be expected?

40 times ✓

- ii) A coin is tossed 80 times, how many tails would be expected?

40 times ✓

- iii) If a coin is tossed 800 times, how many heads would be expected?

400 times ✓

**Question 11****3 marks**

A class raffle is conducted by writing the numbers from 1 to 30 on a piece of paper and placed in a bag. What is the probability that the drawn number is:

- i) 15?  $\frac{1}{30}$  ✓

- ii) even?  $\frac{15}{30} = \frac{1}{2}$  ✓

- iii) divisible by 3?  $\frac{10}{30} = \frac{1}{3}$  ✓

**Question 12****3 marks**

A lottery is conducted by printing and selling tickets with the numbers from 1 to 100,000.

- i) What is the probability that the drawn number is 43 546?

$\frac{1}{100,000}$  ✓

- ii) If you purchase one ticket, what is your **chance** of winning?

$\frac{1}{100,000}$  ✓

- iii) If you purchase 10 tickets, what is your **chance** of winning?

$\frac{10}{100,000} = \frac{1}{10,000}$  ✓

**Question 13****2 marks**

Add GST (10%) to the price of each of the following items:

- i) A hamburger @ \$7

\$ 7.70 ✓

- ii) A shirt @ \$19.00

\$ 20.90 ✓

**Question 14****2 marks**

A discount of 20% is offered on each of the following items. Find the discount, and the new price:

i) A pen @ \$4

$$\text{discount} = 80 \text{¢}$$

$$\therefore = \$3.20 \checkmark$$

ii) A saxophone @ \$980

$$\text{discount} = \$196$$

$$\therefore = \$784 \checkmark$$

**Question 15****2 marks**

If the price of unleaded petrol is \$2.14 per litre:

i) What is the cost of 65 L of petrol?

$$65 \times 2.14 = \$13.91 \checkmark$$

ii) How much petrol can be bought with \$20?

$$20 \div 2.14 = 9.3 \text{ L} \checkmark$$

**Question 16****4 marks**

Find the rate for a 100 of each of the following:

i) \$45 for 300g

$$\$15/100\text{g} \checkmark$$

ii) \$5.48 for 800g

$$69\text{¢}/\text{g} \checkmark$$

iii) \$8.12 for 700mL

$$\$1.16/100\text{mL} \checkmark$$

iv) \$6.20 for 500 mins

$$\$1.24/100 \text{ mins} \checkmark$$

**Question 17****2 marks**

Which is the best buy?

i) \$6.40 for 500mL of soy sauce or \$9.80 for 800mL?

$$\$1.28/100\text{mL} \quad \$1.23/100\text{mL}$$

$\therefore$  Second option  $\checkmark$

ii) \$2.48 for 400g of milk powder or \$3.84 for 600g?

$$62\text{¢}/100\text{g}$$

$$64\text{¢}/100\text{g}$$

$\therefore$  First option  $\checkmark$

**END OF TEST**