

**FOUNDATION TIER
MINI PRACTICE EXAM 3**

**CALCULATOR ALLOWED
20 MINUTES ALLOWED**

1.
(a) Circle the two prime numbers.

2 6 9 13 15 18

(2)

- (b) Circle the number that is a factor of 250.

3 4 5 6 8 12

(1)

- (c) Circle the number that is not a multiple of 15.

30 45 60 75 90 115

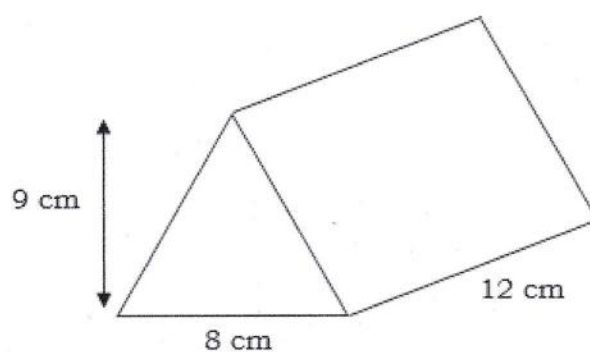
(1)

- (d) Circle the number that is 5 less than a square number.

2 4 6 8 10 12

(1)

2.
Pictured below is a triangular prism.



- (a) How many vertices does the triangular prism have?

6

(1)

- (b) How many edges does the triangular prism have?

9

(1)

- (c) How many faces does the triangular prism have?

5

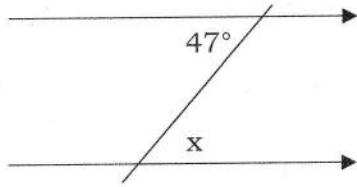
(1)

- (d) Work out the volume of the triangular prism.

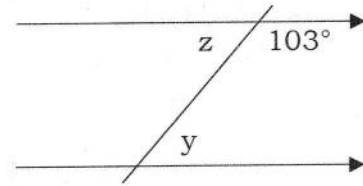
$$\frac{9 \times 8}{2} = 36 \times 12 = \underline{432 \text{ cm}^2}$$

(3)

3.
Find x , y and z . Give reasons for your answers.



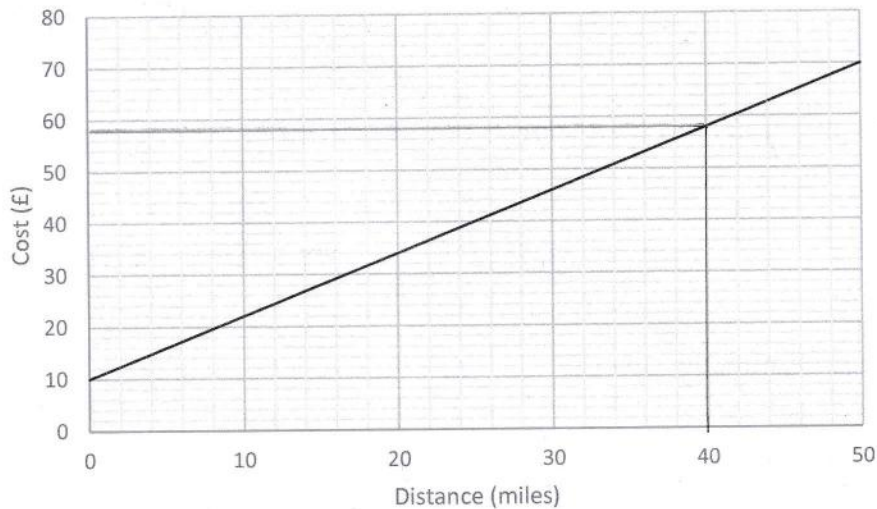
$x = 47^\circ$
because alternate angles are equal.



$$\begin{array}{r} 180 \\ - 103 \\ \hline 77 \end{array}$$

$y = 77^\circ$ because interior angles add to 180°
 $z = 77^\circ$ because angles on a straight line add to 180° (or alternate angles are equal)

4.
Tony is going to hire a car to drive to a meeting.
The cost of the hire depends upon how many miles Tony drives.
The graph below shows the cost of the hire for a given number of miles driven.



(a) What is the fixed cost of hiring the car?

£10

(1)

(b) What is the cost, in pounds, per mile driven?

$$\text{gradient} = \frac{70-10}{50-0} = \frac{60}{50} = \underline{\underline{£1.20}}$$

(2)

(c) Tony's meeting is 20 miles away.
He will use the hire car to drive to the meeting and back.
How much will it cost Tony to hire the car?

£58

(2)