

1 T is inversely proportional to m^2

$$T = 30 \text{ when } m = 0.5$$

(a) Find a formula for T in terms of m .

.....
(3)

(b) Work out the value of T when $m = 0.1$

.....
(1)

(Total for Question 1 is 4 marks)

2

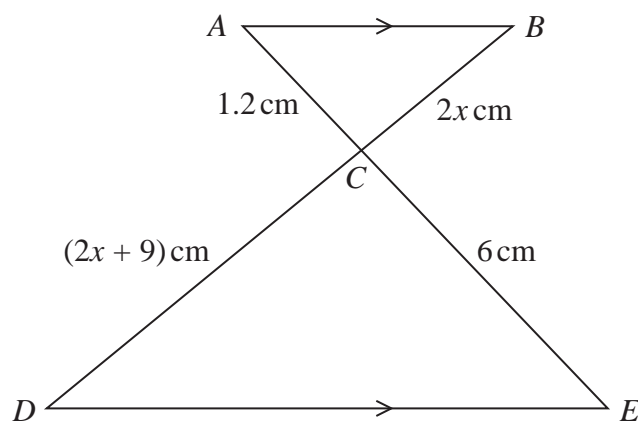


Diagram **NOT**
accurately drawn

ACE and BCD are straight lines.

AB is parallel to DE

Work out the value of x

$x = \dots\dots\dots$

(Total for Question 2 is 3 marks)

3 Larry is a delivery man.

He has 7 parcels to deliver.

The mean weight of the 7 parcels is 2.7 kg

Larry delivers 3 of the parcels.

Each of these 3 parcels has a weight of W kg

The mean weight of the other 4 parcels is 3.3 kg

Work out the value of W

$W = \dots\dots\dots$

(Total for Question 3 is 3 marks)

Curve **L** has equation $y = x^2 + 7x + 20$

Curve **L** is transformed to curve **S** under the translation $\begin{pmatrix} 2 \\ 0 \end{pmatrix}$

4 (b) Find an equation for **S**

Give your answer in the form $y = ax^2 + bx + c$

$y = \dots\dots\dots$
(4)

(Total for Question 4 is 4 marks)