

We Do!

Q1

585

The diagram shows a triangular prism.

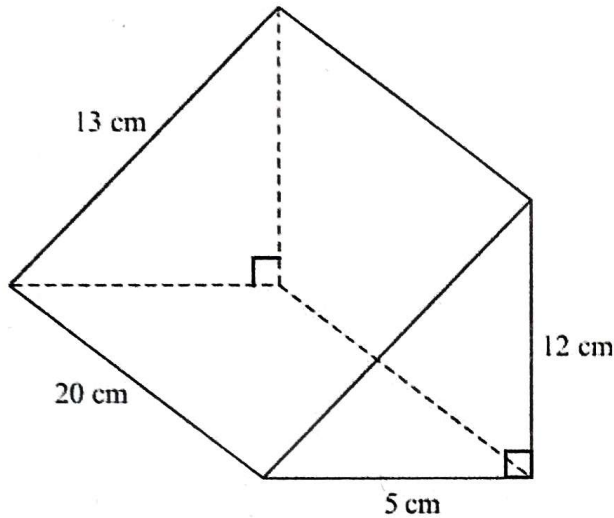


Diagram **NOT**
accurately drawn

Work out the total surface area of the prism.

$$\text{Triangular cross-sections} = \frac{5 \times 12 \times 2}{2} = 30 \text{ cm}^2 \times 2 = 60 \text{ cm}^2$$

$$\text{Base} = 20 \times 5 = 100 \text{ cm}^2$$

$$\text{Side} = 20 \times 12 = 240 \text{ cm}^2$$

$$\dots\dots\dots 660 \dots\dots\dots \text{cm}^2$$

(Total for Question is 3 marks)

$$\text{Slanted surface} = 20 \times 13 = 260 \text{ cm}^2$$

$$\begin{array}{r} \text{TOTAL SURFACE AREA} = 60 \\ + 100 \\ + 240 \\ + 260 \\ \hline \underline{\underline{660 \text{ cm}^2}} \end{array}$$

You do!

Q2.

585

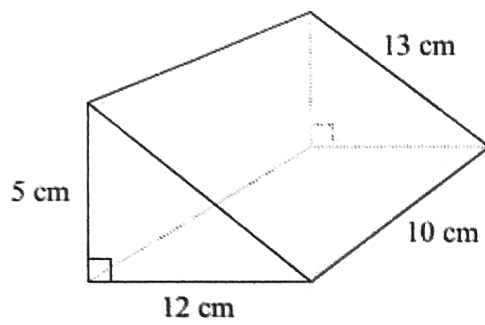


Diagram **NOT** accurately drawn

Work out the total surface area of this triangular prism.

(Total for Question is 4 marks)

We do!

Q3.

64, 65, 68

(a) Work out $1\frac{1}{5} \times 2\frac{1}{3}$

Give your answer as a mixed number in its simplest form.

Convert to improper fractions

$$\frac{6}{5} \times \frac{7}{3} = \frac{42}{15} \xrightarrow{\div 3} \frac{14}{5} = \underline{\underline{2\frac{4}{5}}}$$

$$\underline{\underline{2\frac{4}{5}}}$$

(3)

(b) Work out $2\frac{7}{15} - 1\frac{2}{3}$

$$\frac{2 \times 15 + 7}{15} - \frac{1 \times 3 + 2}{3}$$

$$\frac{37}{15} - \frac{5}{3} \text{ xs}$$

$$\frac{37}{15} - \frac{25}{15} = \frac{12}{15}$$

$$\frac{12}{15}$$

(3)

The question didn't ask for its simplest form. However this would be $\frac{12}{15} \xrightarrow{\div 3} \frac{4}{5}$

(Total for question = 6 marks)

You do!

64, 65, 68

Q4.

Work out $3\frac{4}{5} + \frac{3}{7}$

Give your answer as a mixed number in its simplest form.

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(Total for question = 3 marks)

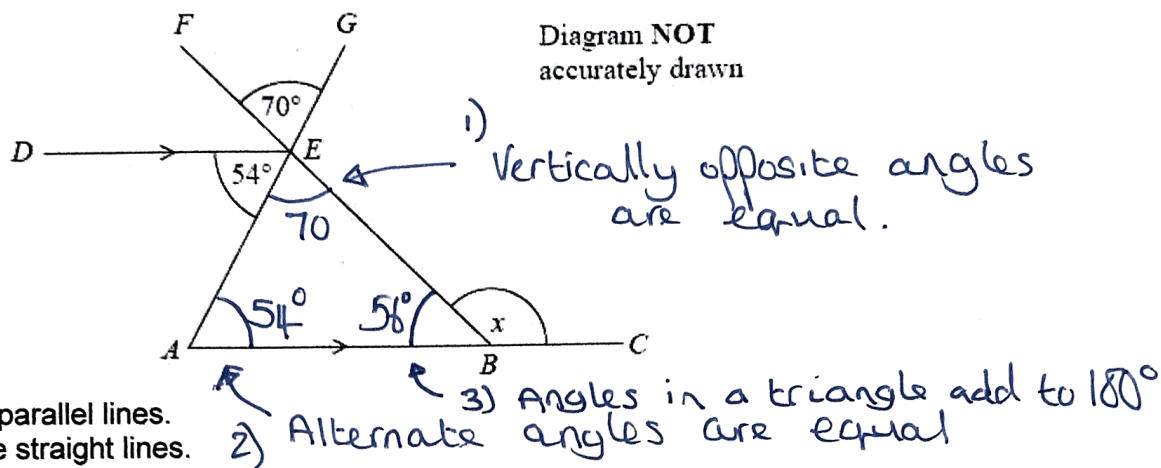
Work out $2\frac{3}{4} \times 3\frac{1}{5}$

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(Total for question = 2 marks)

Q5.

490



ABC and DE are parallel lines.
AEG and BEF are straight lines.

Angle AED = 54°
Angle FEG = 70°

Work out the size of the angle marked x.
Give a reason for each stage of your working.

$\hat{AEB} = 70^\circ$ because vertically opposite angles are equal.

$\hat{EAB} = 54^\circ$ because alternate angles are equal

$\hat{ABE} = 56^\circ$ because angles in a triangle add to 180°

$x = 180 - 56 = 124^\circ$ because angles on a straight line add to 180°

(Total for question = 4 marks)

You Do!

Q6.

490

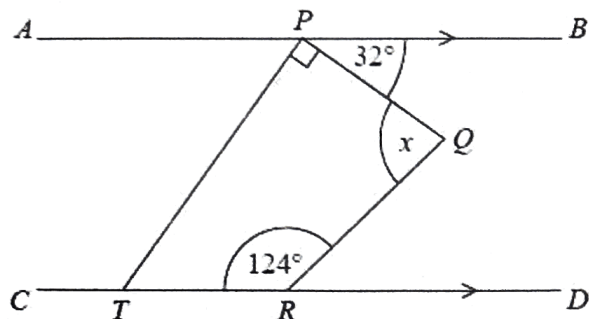


Diagram **NOT**
accurately drawn

APB is parallel to *CTRD*.
PQRT is a quadrilateral.

Work out the size of the angle marked x .
You must show your working.

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(Total for question = 4 marks)

Q7. WE DO

206

On the grid, draw the graph of $y = 1 - 2x$ for values of x from -2 to 3

x	-2	-1	0	1	2	3
y	5	3	1	-1	-3	-5

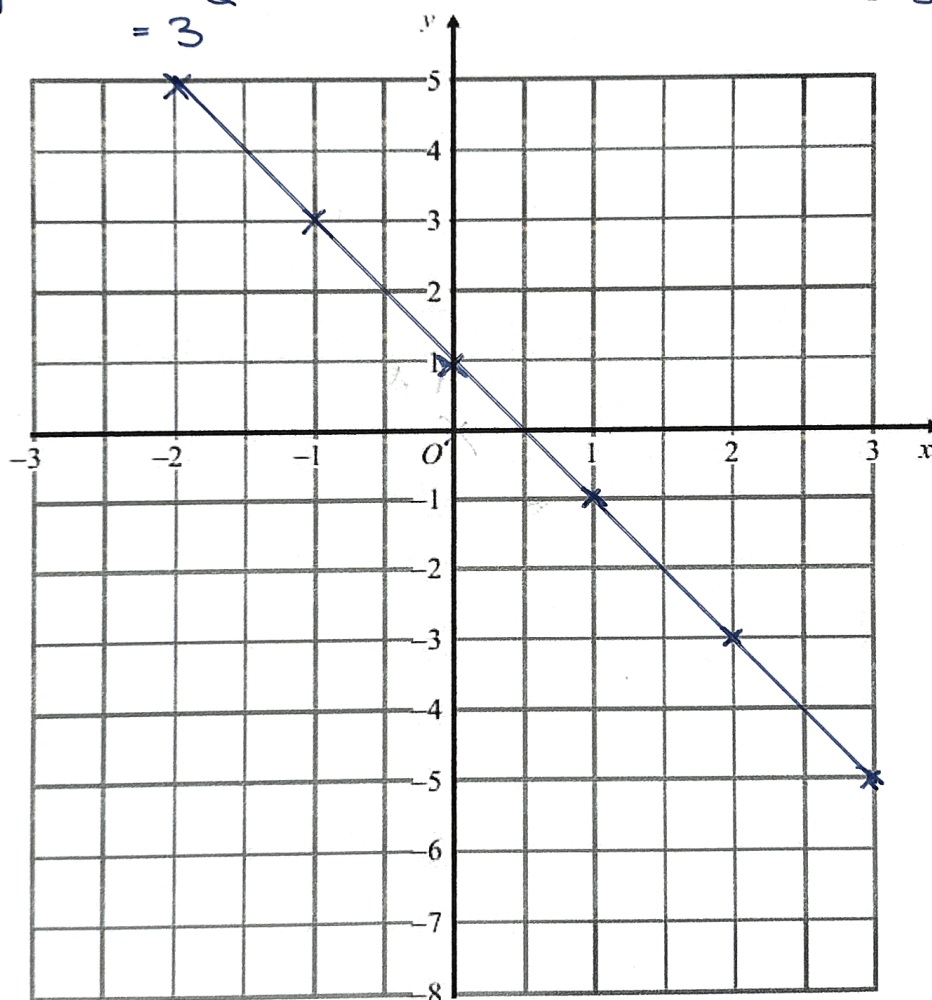
$$1 - 2 \times 4 = 5$$

$$1 - 2 \times 2 = 3$$

for $y = 1 - 2x$

we multiply the x value by 2 &

subtract the answer from 1

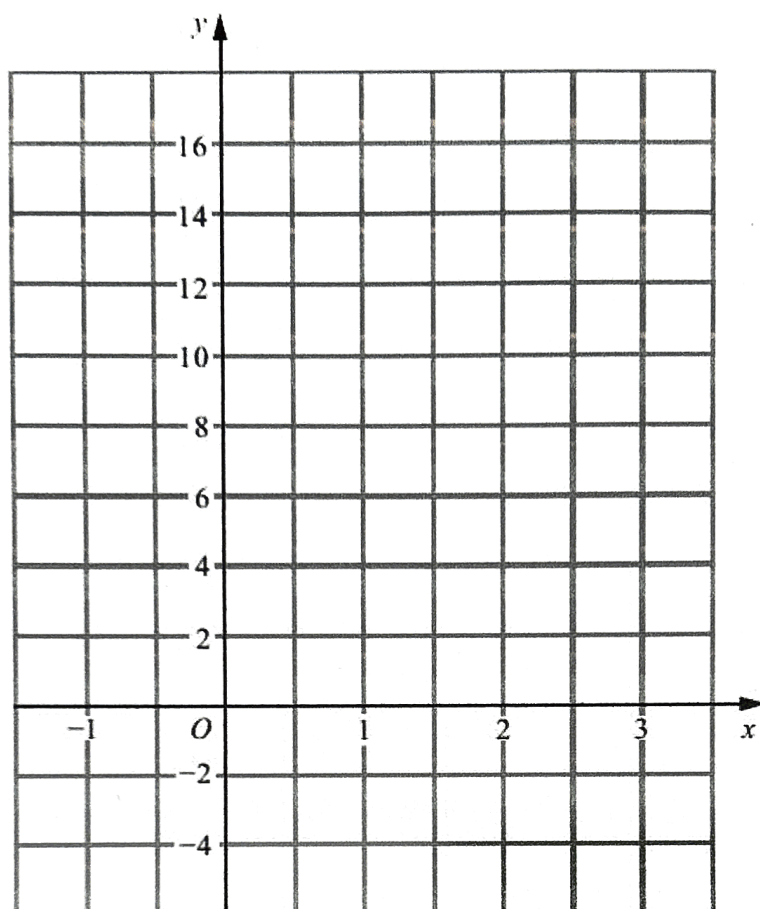


(Total for Question is 3 marks)

Q8. You Do

206

On the grid, draw the graph of $y = 10 - 4x$ from $x = -1$ to $x = 3$



(Total for Question is 3 marks)

We do!

CLIP: 77, 87, 332

Q9.

Tesco, Asda and Morrison's all sell bread.

20% of the loaves sold by Tesco are wholemeal bread.

$\frac{3}{4}$ of the loaves sold by Asda are white bread.

Morrison's sells white bread and wholemeal bread in the ratio 6:4

Which shop sells the most white bread? You must show how you get your answer.

	White	Wholemeal
Tesco	80%	20%
Asda	$\frac{3}{4} = 75\%$	25%
Morrisons	60%	40%

Tesco

100% in the ratio $\frac{\text{White}}{\text{Wholemeal}} = \frac{6}{4}$ (Total for Question is 4 marks)

$$100 \div 10 = 10$$

$$6 \times 10 : 4 \times 10$$

$$60 : 40$$

You do!

Q10.

CLIP: 77, 87, 332

Aldi, Lidl and Iceland all sell chips. The chips are either crinkle or straight cut.

35% of the chips sold by Aldi are crinkle cut.

$\frac{6}{10}$ of the Chips sold by Lidl are straight cut.

Iceland sells straight and crinkle chips in the ratio 13:7

Which shop sells the most crinkle cut chips? You must show how you get your answer.

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(Total for Question is 4 marks)

We do!**Q11.**

8 identical pens cost £12

3 pens and 5 pencils cost £5.50

Work out the cost of 5 pens and 3 pencils.

$$£12 \div 8 = £1.50 \rightarrow 1 \text{ pen}$$

$$3 \text{ pens} = 3 \times £1.50 = £4.50$$

£ 8.10

$$5 \text{ pencils} = £5.50 - £4.50 = £1$$

(Total 4 Marks)

$$1 \text{ pencil} = £1 \div 5 = 20p$$

$$5 \text{ pens} = £1.50 \times 5 = £7.50$$

$$3 \text{ pencils} = 20p \times 3 = 60p$$

$$\text{Total} = £8.10$$

You do!

Q12.

3 jars of paprika and 4 packets of sage have a total weight of 290 grams.

7 jars of paprika have a total weight of 210 grams.

Work out the total weight of 2 jars of paprika and 2 packets of sage.

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(Total 4 marks)