

GCSE CALCULATOR DIAGNOSTIC ASSESSMENT 1

Name.....

Course.....

Score: /30

[illegible]

1) Here is a rectangle.



Work out the perimeter. Circle your answer.

12 cm

24 cm

35 cm

70 cm

[1 mark]

2) Circle the number greater than -0.9

-0.901

-0.89

-0.91

10.9

[1 mark]

3) Lucy works for 37 hours per week. Her weekly wage is £303.40

She receives a pay increase of 25p per hour.

Work out her new weekly wage.

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Answer £

[2 marks]

4a) Complete the bank statement.

Date	Description	Credit (£)	Debit (£)	Balance (£)
01/09/18	Starting balance			1140.79
06/09/18	Car repairs		256.00	
17/09/18	Gas bill		87.31	
24/09/18	Salary	2069.75		

[3 marks]

(b) Write down the meaning of 'Debit' as used in the bank statement.

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[1 mark]

5a) Lena is at the gym.

She will use each of these pieces of equipment once.

Rowing machine (R) Stepper (S)

Treadmill (T) Bike (B)

Lena will use the rowing machine **first**.

List all the possible orders in which she could use the four pieces of equipment.

[2 marks]

5b) The table shows how long Lena spends on each piece of equipment.

<i>Rowing machine</i>	<i>15 minutes</i>
<i>Stepper</i>	<i>13 minutes</i>
<i>Treadmill</i>	<i>35 minutes</i>
<i>Bike</i>	<i>1 hour and 30 minutes</i>

Lena starts on the rowing machine at 1.50 pm

She has a break for 4 minutes between pieces of equipment.

What time does she finish on her last piece of equipment?

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[3 marks]

6) Each side of a square is made 3 times as long.

What happens to the perimeter?

Circle your answer.

× 3 × 6 × 9 × 12

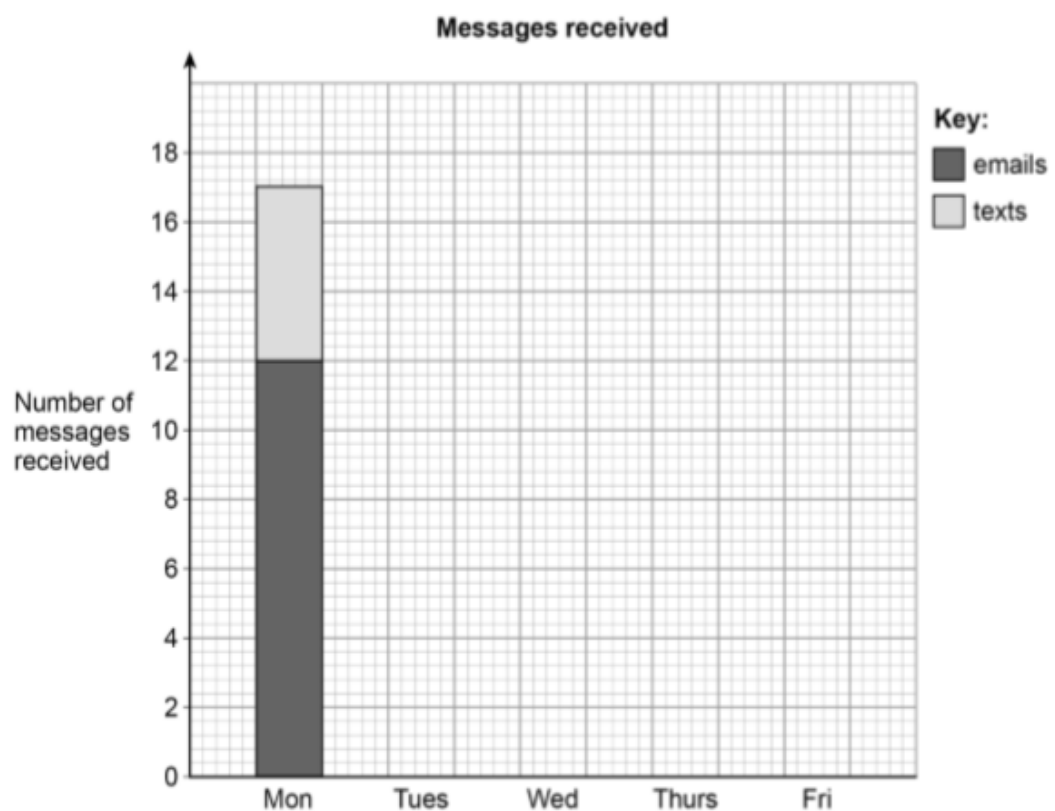
[1 mark]

7)

The table shows the number of messages Sam received each day for five days.

	Messages	
	Number of emails	Number of texts
Monday	12	5
Tuesday	8	6
Wednesday	10	3
Thursday	6	6
Friday	12	4

- (a) Sam draws a composite bar chart to represent the data.
He has drawn the bar for Monday.



Complete the chart.

[2 marks]

(b) In total, what fraction of the messages were emails?

Give your answer in its simplest form.

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Answer

[3 marks]

8) A company uses this formula to work out the cost, £A, of a taxi ride.

$$A = 4 + 1.8m + b$$

£4 is a fixed charge

m is the number of miles travelled

£b is a charge for booking online

(a)

Clare books a taxi online and travels 8 miles.

She pays £20 altogether.

How much is the charge for booking online?

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Answer £.....

[3 marks]

b) A different company

has a fixed charge of £3

charges £1.90 per mile

has no charge for booking online.

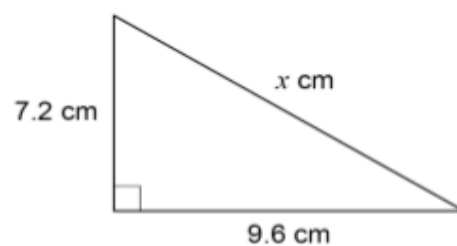
Write a formula for the cost, £C, of a taxi ride with this company.

Answer.....

[1 mark]

9)

Here is a right-angled triangle.



Not drawn
accurately

Show that $x = 12$

[2 marks]

10) There are 240 cows on a farm.

a) On the farm,
number of bulls : number of cows = 1 : 30

How many bulls are there?

[1 mark]

Answer _____

Assume

b) the 240 cows produce milk for 10 months each year
each cow produces an average of 25 litres of milk per **day**.

Estimate the total milk production, in litres, of the 240 cows in one year.

You **must** show your working.

[4 marks]

Answer _____ litres