

1 $V = \frac{k}{H}$ where k is a constant.

Which **two** statements are correct?

Tick **two** boxes.

[1 mark]

☐

V is directly proportional to H

☐

V is inversely proportional to H

☐

V is directly proportional to $\frac{1}{H}$

☐

V is inversely proportional to $\frac{1}{H}$

2

Circle the equation where c is inversely proportional to d .**[1 mark]**

$$c = \frac{1}{2}d$$

$$c = \frac{2}{d}$$

$$c = -2d$$

$$c = -\frac{2}{d^2}$$

3

An electric car uses 1 unit of electricity to travel 3 miles.
1 unit of electricity costs 50 pence.
Work out the cost of electricity, in pounds, to travel 270 miles.

[3 marks]

Answer £ _____

- 4 (a)** Leema buys 2 metres of linen at £8.50 per metre.
She also buys 5 metres of cotton.
The **total** cost is £38

What is the cost of **one** metre of cotton?

[4 marks]

Answer £ _____

- 4 (b)** Buttons cost 65p each.
The greatest number of buttons Leema can buy with £5 is 7
She says,

“The greatest number of buttons I can buy with £10 is 14 because £10 is double £5”

Is she correct?

Tick a box.

Yes

☐

No

☐

Show working to support your answer.

[2 marks]

5

A chef has a tub of blueberries.

She wants to

use all the blueberries

put the same number of blueberries on each dessert.

$$D = \frac{k}{b}$$

D is the number of desserts.

b is the number of blueberries on each dessert.

5 (a)

Complete the table.

[2 marks]

b	2	6	
D	120		30

6

Tins of beans are sold in shop A and shop B.

Shop A

1 tin 64p

Buy 4 tins for the price of 3 tins

Shop B

1 tin 62p

Pack of 3 tins £1.70

10% reduction in price on all **packs**

At which shop is it cheaper to buy 20 tins?

State how much cheaper.

[5 marks]

Shop _____ Cheaper by _____