PRESSURE

Pearson Edexcel - Thursday 7 June 2018 - Paper 2 (Calculator) Higher Tier

1.

6 A force of 70 newtons acts on an area of $20\,cm^2$

$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

The force is increased by 10 newtons.
The area is increased by $10\,cm^2$

Helen says,

"The pressure decreases by less than 20%"

Is Helen correct?
You must show how you get your answer.

(Total for Question 6 is 3 marks)

Pearson Edexcel - Specimen Papers Set 1 - Paper 1 (Non-Calculator) Higher Tier

2.

2 A box exerts a force of 140 newtons on a table.
The pressure on the table is 35 newtons/m^2.

Calculate the area of the box that is in contact with the table.

$$p = \frac{F}{A}$$

p = pressure
F = force
A = area

.....

(Total for Question 2 is 3 marks)

Pearson Edexcel - Sample Paper 1 - (Non-Calculator) Higher Tier

3.

12 Pressure $= \frac{\text{force}}{\text{area}}$

Find the pressure extered by a force of 900 newtons on an area of 60 cm^2.
Give your answer in newtons/m^2.

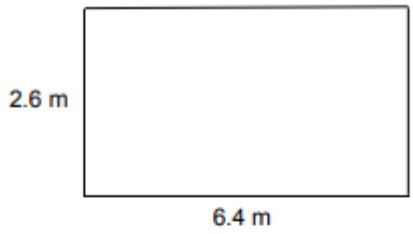
..... newtons/m^2

(Total for Question 12 is 2 marks)

AQA GSCE – Thursday 6 November 2017 – Paper 2 (Calculator) Higher Tier

4.

25 The dimensions of a rectangular floor are to the nearest 0.1 metres.



Not drawn accurately

A force of 345 Newtons is applied to the floor.

The force is to the nearest 5 Newtons.

$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

Work out the upper bound of the pressure.

Give your answer to 4 significant figures.

You **must** show your working.

[5 marks]

Answer _____ N/m^2

AQA GSCE – Sample Paper 3 (Calculator) Higher Tier

5.

11 The pressure at sea level is 101 325 Pascals.

Any rise of 1 km above sea level decreases the pressure by 14%

For example,

at 3 km above sea level the pressure is 14% less than at 2 km

Work out the pressure at 4 km above sea level.
Give your answer to 2 significant figures.

[4 marks]

Answer _____ Pascals