FINDING FORMULA

Pearson Edexcel - Tuesday 21 May 2019 - Paper 1 (Non-Calculator) Higher Tier

1.

20 h is inversely proportional to p
p is directly proportional to $\sqrt{t}$

Given that $h = 10$ and $t = 144$ when $p = 6$
find a formula for h in terms of t

.....

(Total for Question 20 is 4 marks)

Pearson Edexcel - Thursday 24 May 2018 - Paper 1 (Non-Calculator) Higher Tier

2.

14 y is inversely proportional to d^2
When $d = 10$, $y = 4$

d is directly proportional to x^2
When $x = 2$, $d = 24$

Find a formula for y in terms of x.
Give your answer in its simplest form.

.....

(Total for Question 14 is 5 marks)

Pearson Edexcel - Thursday 24 May 2018 - Paper 1 (Non-Calculator) Higher Tier

3.

19 The point P has coordinates $(3, 4)$
The point Q has coordinates (a, b)

A line perpendicular to PQ is given by the equation $3x + 2y = 7$

Find an expression for b in terms of a.

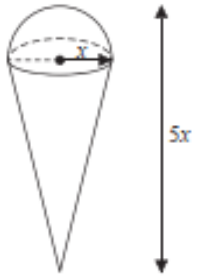
.....

(Total for Question 19 is 5 marks)

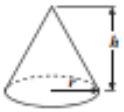
Pearson Edexcel - Specimen Papers Set 2 - Paper 1 (Non-Calculator) Higher Tier

4.

11 A solid is made by putting a hemisphere on top of a cone.

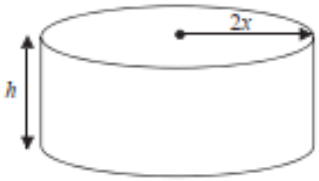


Volume of cone $= \frac{1}{3}\pi r^2 h$



Volume of sphere $= \frac{4}{3}\pi r^3$

The total height of the solid is $5x$
The radius of the base of the cone is x
The radius of the hemisphere is x



A cylinder has the same volume as the solid.
The cylinder has radius $2x$ and height h
All measurements are in centimetres.

Find a formula for h in terms of x
Give your answer in its simplest form.

.....

(Total for Question 11 is 5 marks)

Pearson Edexcel - Thursday 26 May 2016 - Paper 1 (Non-Calculator) Higher Tier

5.

9 A shop sells packets of envelopes.

There are 5 envelopes in a small packet.
There are 20 envelopes in a large packet.

There is a total of T envelopes in x small packets and y large packets.

Write down a formula for T in terms of x and y.

.....

(Total for Question 9 is 3 marks)

Pearson Edexcel - Wednesday 5 November 2014 - Paper 1 (Non-Calculator) Higher Tier

6.

4 Kalinda buys x packs of currant buns and y boxes of iced buns.

There are 6 currant buns in a pack of currant buns.
There are 8 iced buns in a box of iced buns.

Kalinda buys a total of T buns.
Write down a formula for T in terms of x and y.

.....

(Total for Question 4 is 3 marks)

Pearson Edexcel - Friday 2 March 2012 - Paper 3 (Non-Calculator) Higher Tier

7.

9. Sweets are sold in bags and in tins.

There are 20 sweets in a bag.
There are 30 sweets in a tin.

Lee buys B bags of sweets and T tins of sweets.

He buys a total of S sweets.
Write down a formula for S in terms of B and T.

.....

(Total 3 marks)

Pearson Edexcel - Monday 6 June 2011 - Paper 3 (Non-Calculator) Higher Tier

8.

25.

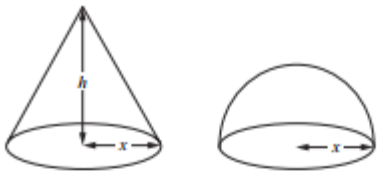


Diagram **NOT** accurately drawn

The diagram shows a solid cone and a solid hemisphere.

The cone has a base of radius x cm and a height of h cm.
The hemisphere has a base of radius x cm.
The surface area of the cone is equal to the surface area of the hemisphere.

Find an expression for h in terms of x.

.....

(Total 4 marks)

Pearson Edexcel - Friday 12 November 2010 - Paper 4 (Calculator) Higher Tier

9.

12. A shop sells small boxes and large boxes for storing CDs.

A small box stores x CDs.
A large box stores y CDs.

Ethan buys 7 small boxes.
He also buys 5 large boxes.

Ethan can store a total of T CDs in these boxes.

Write down a formula for T in terms of x and y.

.....

(Total 3 marks)

Pearson Edexcel - Thursday 5 November 2009 - Paper 3 (Non-Calculator) Higher Tier

10.

12. Batteries are sold in packets and boxes.

Each packet contains 4 batteries.
Each box contains 20 batteries.

Bill buys p packets of batteries
and b boxes of batteries.
Bill buys a total of N batteries.

Write down a formula for N in
terms of p and b.

.....

(Total 3 marks)

Pearson Edexcel - Tuesday 10 November 2009 - Paper 4 (Calculator) Higher Tier

11.

25. y is directly proportional to x.

When $x = 500$, $y = 10$

(a) Find a formula for y in terms of x.

$y =$ .....

(3)

(b) Calculate the value of y when $x = 350$

$y =$ .....

(1)

(Total 4 marks)

AQA GSCE – Wednesday 8 November 2017 – Paper 3 (Calculator) Higher Tier

12.

20 w is a positive number.

x is 10% more than w.

y is 10% less than x.

Which statement is true?

Tick **one** box.

[1 mark]

$w < x$ and $w < y$ ☐

$w < x$ and $w = y$ ☐

$x > y$ and $w > y$ ☐

$x > y$ and $w = y$ ☐