DEGREE OF ACCURACY

Pearson Edexcel - Tuesday 11 June 2019 - Paper 3 (Calculator) Higher Tier

1.

19 $D = \dfrac{u^2}{2a}$

    $u = 26.2$ correct to 3 significant figures

    $a = 4.3$ correct to 2 significant figures

    (a) Calculate the upper bound for the value of D.
        Give your answer correct to 6 significant figures.
        You must show all your working.

....

(3)

    The lower bound for the value of D is 78.6003 correct to 6 significant figures.

    (b) By considering bounds, write down the value of D to a suitable degree of accuracy.
        You must give a reason for your answer.

(2)

(Total for Question 19 is 5 marks)

Pearson Edexcel - Monday 12 November 2018 - Paper 3 (Calculator) Higher Tier

2.

18 A high speed train travels a distance of 487 km in 3 hours.

The distance is measured correct to the nearest kilometre.
The time is measured correct to the nearest minute.

By considering bounds, work out the average speed, in km/minute, of the train to a suitable degree of accuracy.
You must show all your working and give a reason for your answer.

....km/minute

(Total for Question 18 is 5 marks)

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

3.

21 Jackson is trying to find the density, in g/cm³, of a block of wood.
The block of wood is in the shape of a cuboid.

He measures

the length as 13.2 cm, correct to the nearest mm
the width as 16.0 cm, correct to the nearest mm
the height as 21.7 cm, correct to the nearest mm

He measures the mass as 1970 g, correct to the nearest 5 g.

By considering bounds, work out the density of the wood.
Give your answer to a suitable degree of accuracy.

You must show all your working and give a reason for your final answer.

(Total for Question 21 is 5 marks)

Pearson Edexcel - Tuesday 13 June 2017 - Paper 3 (Calculator) Higher Tier

4.

17 A train travelled along a track in 110 minutes, correct to the nearest 5 minutes.

Jake finds out that the track is 270 km long.
He assumes that the track has been measured correct to the nearest 10 km.

(a) Could the average speed of the train have been greater than 160 km/h?
You must show how you get your answer.

(4)

Jake's assumption was wrong.
The track was measured correct to the nearest 5 km.

(b) Explain how this could affect your decision in part (a).

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(1)

(Total for Question 17 is 5 marks)

Pearson Edexcel - Specimen Papers Set 1 - Paper 3 (Calculator) Higher Tier

5.

2 The length, L cm, of a line is measured as 13 cm correct to the nearest centimetre.

Complete the following statement to show the range of possible values of L

.... $\leqslant L <$ ....

(Total for Question 2 is 2 marks)

Pearson Edexcel - Sample Paper 2 - (Calculator) Higher Tier

6.

18 $m = \dfrac{\sqrt{s}}{t}$ $s = 3.47$ correct to 3 significant figures

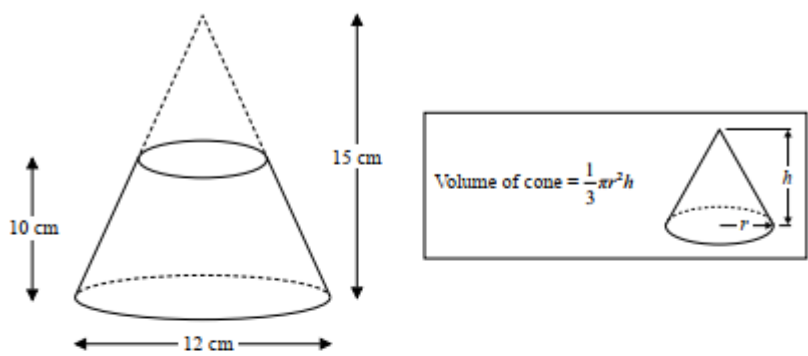$t = 8.132$ correct to 4 significant figures

By considering bounds, work out the value of m to a suitable degree of accuracy.
Give a reason for your answer.

Pearson Edexcel - Sample Paper 2 - (Calculator) Higher Tier

7.

22 A frustum is made by removing a small cone from a large cone as shown in the diagram.

The frustum is made from glass.
The glass has a density of 2.5 g / cm^3

Work out the mass of the frustum.
Give your answer to an appropriate degree of accuracy.

.... g

(Total for Question 22 is 5 marks)

Pearson Edexcel - Monday 4 March 2013 - Paper 2 (Calculator) Higher Tier

8.

•24 $m = \dfrac{\sqrt{s}}{t}$

$s = 3.47$ correct to 2 decimal places
$t = 8.132$ correct to 3 decimal places

By considering bounds, work out the value of m to a suitable degree of accuracy.

You must show all your working and give a reason for your final answer.

(Total for Question 24 is 5 marks)

Pearson Edexcel - Monday 5 March 2012 - Paper 4 (Calculator) Higher Tier

9.

22. The average fuel consumption (c) of a car, in kilometres per litre, is given by the formula

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

where d is the distance travelled, in kilometres, and f is the fuel used, in litres.

$d = 163$ correct to 3 significant figures.
$f = 45.3$ correct to 3 significant figures.

By considering bounds, work out the value of c to a suitable degree of accuracy.
You must show **all** of your working **and** give a reason for your final answer.

$c =$ ....

(Total 5 marks)

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

10.

28.

$$v = \sqrt{\dfrac{a}{b}}$$

$a = 6.43$ correct to 2 decimal places.
$b = 5.514$ correct to 3 decimal places.

By considering bounds, work out the value of v to a suitable degree of accuracy.

You must show all your working and give a reason for your final answer.

$v =$ ....

(Total 5 marks)

11.