Top Ten

Name:

....

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Target 5 GCSE Set 1 Paper 3

Q	Topic	My Mark	Max Marks
Non Calculator			
1	HCF and LCM		5
2	Rounding, estimation and error intervals		5
3	Standard form		5
4	Angles with algebra		5
5	Factorising and expanding quadratics		5
6	Linear and Simultaneous equations		6
Calculator			
7	Reverse percentages		3
8	Pythagoras' Theorem and Trigonometry		6
9	Direct and inverse proportion		6
10	Speed Distance Time		7
			53

AJagger

Question 1 - Highest Common Factor and Lowest Common Multiple

(a) Find the Highest Common Factor of 84 and 196.

....

[3]

(b) Work out the Lowest Common Multiple of 84 and 196.

....

[2]

Question 2 - Rounding, estimation and error intervals

(a) Estimate the value of

$$\frac{220.9 - 45.08}{0.472}$$

…………………..

[3]

(b) The width of a piano is 120cm correct to the nearest 10cm.
Write down the error interval for the width of the piano.

…..................... ≤ n <…......................

[2]

Question 3 - Standard form

(a) Write 0.79×10^{-3} in correct standard form notation

....
[1]

(b) Work out $(7.2 \times 10^4) \times (3 \times 10^{11})$.
Write your answer in standard form.

....
[2]

(c) Work out $(5.2 \times 10^5) - (8 \times 10^4)$. Write your answer in standard form.

....
[2]

Question 4 - Angles with algebra
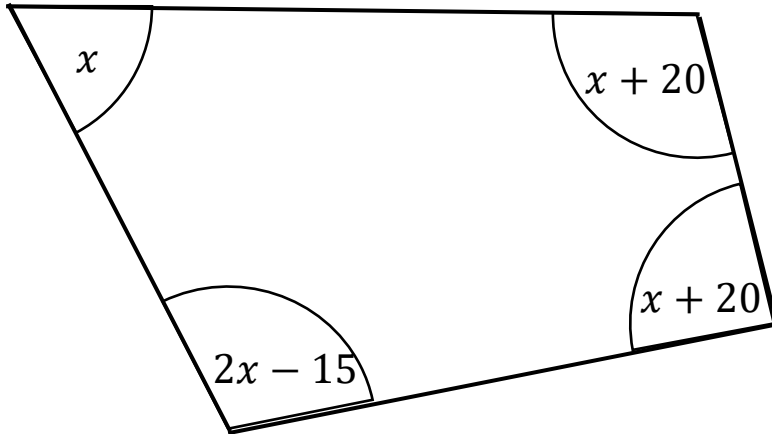
Diagram NOT drawn accurately

Find the size of each of the four angles.

.... , ... , ... , ...

[5]

Question 5 - Factorising and expanding quadratics

(a) Expand $(x - 4)(x - 11)$

....
[2]

(b) Factorise $x^2 - 7x - 8$

....
[2]

(c) Use your answer to (b) to solve $x^2 - 7x - 8 = 0$

$x =$........................ **or** $x =$........................
[1]

Question 6 - Linear and Simultaneous equations

(a) Solve $\dfrac{x + 5}{4} = -8$

$x =$........................
[2]

(b) Solve the simultaneous equations
$$6x - 7y = 35$$
$$4x - 5y = 23$$

$x =$.............................

$y =$.............................

[4]

Calculator

Question 7 - Reverse percentages

A pair of jeans cost £56 in a 20% off sale. What was the pre-sale price?

....

[3]

Question 8 - Pythagoras' Theorem and Trigonometry

(a) A boy scout ties a rope from the top of a flag pole to the ground to secure it. The flag pole is 9 metres tall and he anchors it 5.5 metres away from the bottom of the flag pole. How long must the rope be to do this?

………………..m

[3]

(b) Calculate the size of the angle marked x.
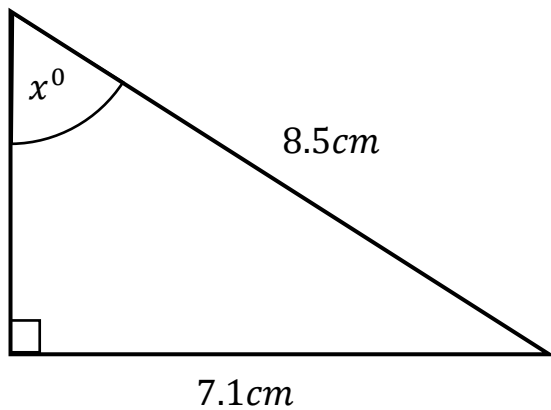Give your answer to 3 significant figures.

x^0

8.5cm

7.1cm

Diagram NOT drawn accurately

$x = $ ………………^{0}

[3]

Question 9 - Direct and Inverse Proportion

S is inversely proportional to T.
When S = 32, T = 4

(a) Write a formula for S in terms of T.

....
[3]

(b) Calculate the value of S when T = 2

S = ...
[1]

(c) Calculate the value of T when S = 8

T = ...
[2]

Question 10 - Speed Distance Time

(a) A cyclist travels for 792 metres at 12m/s
Work out the time of the journey. Give your answer in minutes and seconds.

.... minutes   …………… seconds
[3]

(b) Miss Tyrrell catches the 9:45am bus from Leeds to London.
The distance between the two cities is 195 miles.
The bus travels at an average speed of 52 mph.
What time should she arrive in Glasgow?

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[4]