Top Ten

Name:

....

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Target 5 GCSE Set 1 Paper 4

	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		7
	9	Direct and inverse proportion		6
	10	Speed Distance Time		7
				54

AJagger

Question 1 - Highest Common Factor and Lowest Common Multiple

(a) Find the Highest Common Factor of 160 and 192.

....

[3]

(b) Work out the Lowest Common Multiple of 160 and 192.

....

[2]

Question 2 - Rounding, estimation and error intervals

(a) Estimate the value of

$$\frac{26.29 \times 17.9}{0.43}$$

....

[3]

(b) The cost of a new kitchen is quoted as £2500 correct to the nearest £500.
Write down the error interval for the cost of the new kitchen.

…..................... ≤ c <…....................

[2]

Question 3 - Standard form

(a) Write 164×10^{-6} in correct standard form notation

....
[1]

(b) Work out $(4.2 \times 10^{-4}) \div (1.4 \times 10^1)$.
Write your answer in standard form.

....
[2]

(c) Work out $(2.3 \times 10^6) - (9 \times 10^5)$. Write your answer in standard form.

....
[2]

Question 4 - Angles with algebra
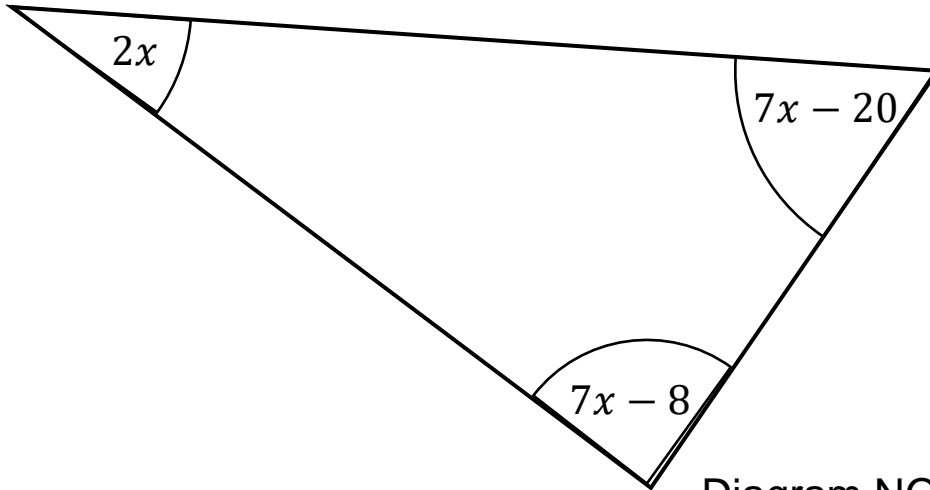
Diagram NOT drawn accurately

Find the size of each of the three angles.

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

[5]

Question 5 - Factorising and expanding quadratics

(a) Expand $(x - 6)(x - 3)$

....
[2]

(b) Factorise $x^2 - 12x + 27$

....
[2]

(c) Use your answer to (b) to solve $x^2 - 12x + 27 = 0$

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

Question 6 - Linear and Simultaneous equations

(a) Solve $\dfrac{x - 11}{7} = -3$

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

(b) Solve the simultaneous equations

$$9x - 8y = 21$$
$$5x - 6y = 7$$

$x = $……………………..

$y = $……………………..

[4]

Calculator

Question 7 - Reverse percentages

A refrigerator costs £780 in a 40% off sale. What was the pre-sale price?

…………………………

[3]

Question 8 - Pythagoras' Theorem and Trigonometry

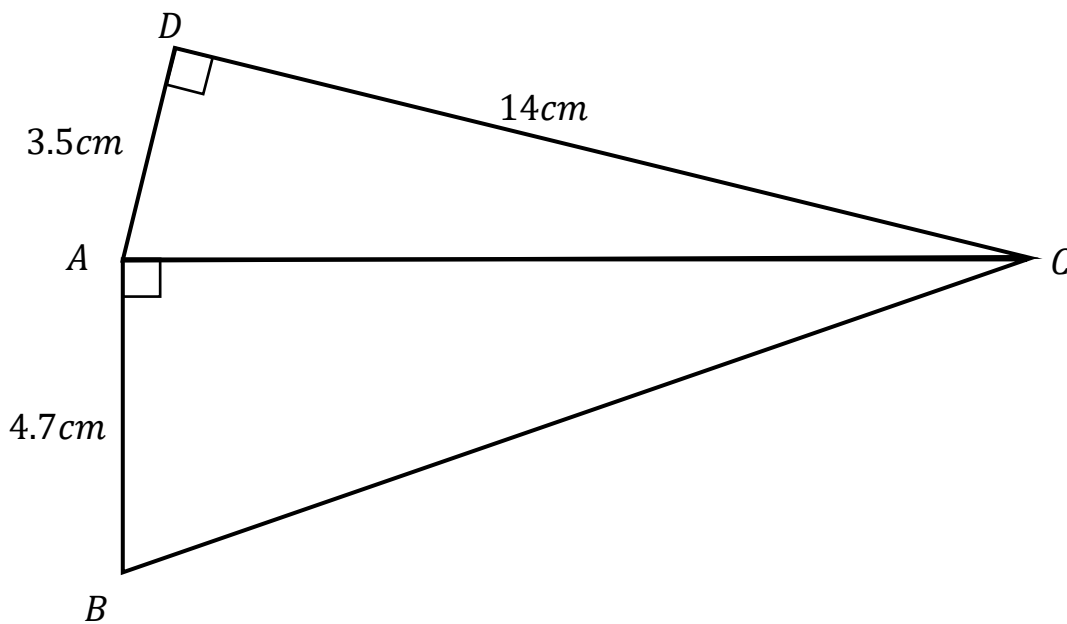**(a)** Calculate the length of the side BC to 2 decimal places.

Diagram NOT drawn accurately

BC = ………………… cm

[4]

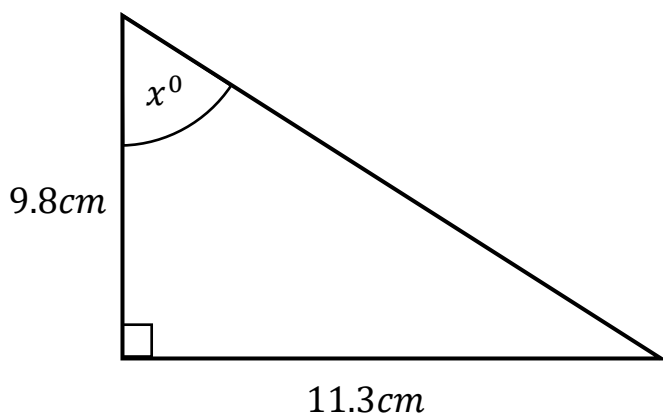**(b)** Calculate the size of the angle marked x.
Give your answer to 3 significant figures.

11.3cm

Diagram NOT drawn accurately

x = ………………….^{0}

[3]

Question 9 - Direct and Inverse Proportion

A is inversely proportional to B.
When A = 4, B = 8

(a) Write a formula for A in terms of B.

....
[3]

(b) Calculate the value of A when B = 2

A = ...
[1]

(c) Calculate the value of B when A = 8

B = ...
[2]

Question 10 - Speed Distance Time

(a) A van travels for 154 miles in 2 hours 20 minutes.
Work out the average speed of the van.

.................................mph
[3]

(b) Seth and Terry are travelling between the same two towns that are 65 miles apart.
Seth drives and it takes him 2 hours 30 minutes.
Terry cycles and it takes him 6 hours 30 minutes.
What is the difference between their average speeds?

.... mph
[4]