

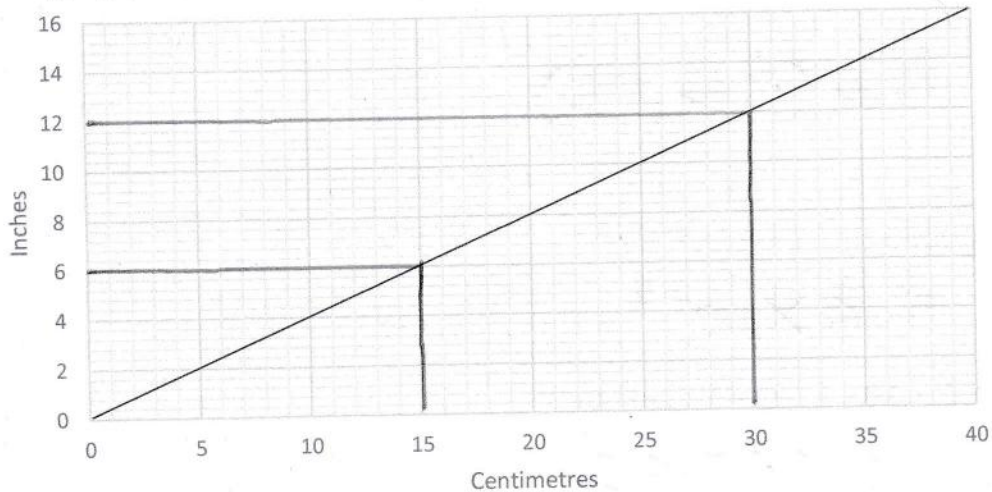
**FOUNDATION TIER  
MINI PRACTICE EXAM 9**



metatutor

**NON-CALCULATOR  
20 MINUTES ALLOWED**

1.  
The conversion graph below converts centimetres to inches.



(a) Aaron says "12 inches is longer than 32 centimetres". Is he correct?

12 inches = 30 cm

NO

(2)

(b) Beatrice is making bracelets.  
She has a roll of 5 metres of string.  
Each bracelet requires 6 inches of string.  
How many bracelets can Beatrice make?

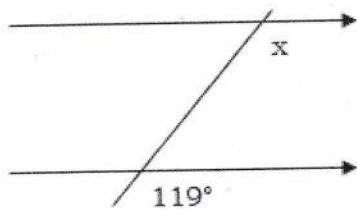
6 inches = 15 cm

$$15 \overline{) 5000} \begin{array}{r} 0333 \dots \\ \underline{5000} \\ 0 \end{array}$$

33 bracelets

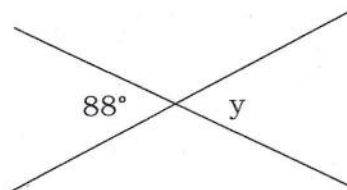
(3)

2.  
Find  $x$  and  $y$ . Give reasons for your answers.



$x = 119^\circ$

Corresponding angles  
are equal



$y = 88^\circ$

opposite angles  
are equal.

(3)

3.

(a) Expand and simplify  $3(4x + 1) + 5(2 - x)$

$$12x + 3 + 10 - 5x = \underline{7x + 13}$$

(b) Factorise  $12x^2 + 20x$

$$4x(3x + 5)$$

4.

(a) Convert  $0.00056$  into standard form.

$$5.6 \times 10^{-4}$$

(b) Convert  $5.62 \times 10^{-3}$  from standard form.

$$0.00562$$

(c) Russia has a surface area of  $1.6 \times 10^7$  square metres.

Australia has a surface area of  $8 \times 10^6$  square metres.

How many times larger in surface area is Russia than Australia?

$$1.6 \div 8 = 0.2$$

$$10^7 \div 10^6 = 10^1$$

$$0.2 \times 10^1 = \underline{2}$$

5.

Chris thinks of a whole number.

He multiplies his number by 3, and then rounds his answer to the nearest 10.

He ends up with 40.

Write down all the numbers that Chris could have been thinking of.

Multiples of 3: 3, ..., 33, 36, 39, 42, 45, ...

$$36 \div 3 = 12$$

$$39 \div 3 = 13$$

$$42 \div 3 = 14$$

$$\underline{12, 13, 14}$$