

NAME	
TEACHER	

Year 9 Mathematics  
January Assessment 2025

Paper 2  
NON-CALCULATOR

30 minutes

33 marks

Show all your working next to the question

1 Write down the value of:

(a)  $3^0 =$  \_\_\_\_\_

(b)  $5^{-2} =$  \_\_\_\_\_

[2 marks]

2 (a) Write 280 as a product of its prime factors.

[2 marks]

Answer \_\_\_\_\_

(b)  $588 = 2^2 \times 3 \times 7^2$

Work out the highest common factor of 280 and 588

[2 marks]

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Answer \_\_\_\_\_

3

Work out the value of  $(4^{10} \div 4^4) \div (4^2 \times 4)$

[3 marks]

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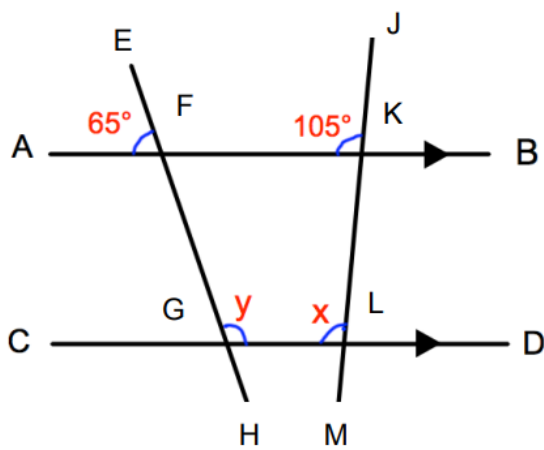
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Answer \_\_\_\_\_

4



Lines AB and CD are parallel

(a) Find angle x

Answer: \_\_\_\_\_°

(b) Find angle y

Answer: \_\_\_\_\_°

[3 marks]

5

(a) Solve  $5x + 6 < 2x - 3$

[3 marks]

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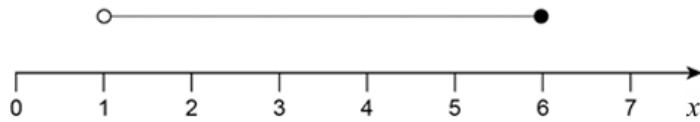
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Answer \_\_\_\_\_

(b) Write down the inequality represented by the number line.

[2 marks]



Answer \_\_\_\_\_

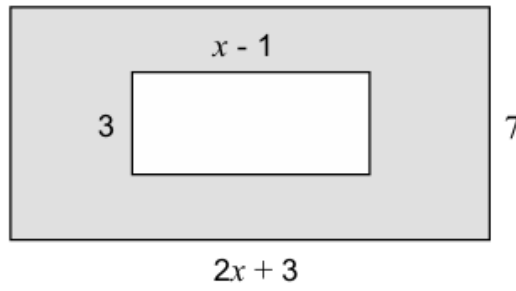
6 Write  $0.\dot{3}\dot{6}$  as a fraction in its lowest terms.

Answer: \_\_\_\_\_

[3 marks]

7

The diagram shows two rectangles.  
All dimensions are in centimetres.



Not drawn accurately

The shaded area is  $84.5 \text{ cm}^2$

Work out the perimeter of the white rectangle.

**[5 marks]**

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Answer \_\_\_\_\_ cm

8 Sally is mixing concrete.

To make concrete she will mix cement, sand and aggregate in the ratio 1 : 5 : 10

She has 0.6 cubic metres of sand and plenty of cement and aggregate.

Can Sally make 2 cubic metres of concrete?

You **must show working to support your answer.**

Answer: \_\_\_\_\_

[3 marks]

9

Rearrange  $y = \frac{2x-1}{4x+5}$  to make  $x$  the subject.

[5 marks]

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Answer \_\_\_\_\_

**END OF TEST**