

# Mathematics

## Practice Paper 1

### Instructions

You may not use a calculator to answer questions on this paper.

You should attempt to answer every question on this paper.

If you get stuck, leave the question and come back to it later if you have time.

Time for the paper: 45 mins.

Name: \_\_\_\_\_

Marks:  $\overline{\quad}$   
32

1. Put these numbers in order of size.

3504 3054 5043 4053 4350 4305

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(1)

2. Fill in the missing digit to make the following statement correct.

$$2104 > 2\boxed{\phantom{0}}04$$

(1)

3. Express 138 as a product of its prime factors.

\_\_\_\_\_ (2)

4. a Give the value of  $16^{\frac{1}{2}}$ .

(1)

b Give the value of  $12^0$ .

(1)

c Give the value of  $8^2 + 8^1 + 8^0$ .

(2)

5. Find the value of  $\text{LCM}(45, 65) - \text{HCF}(45, 65)$

\_\_\_\_\_ (5)

6. a  $5^{-2} =$

\_\_\_\_\_ (2)

b  $\left(\frac{7}{8}\right)^2 =$

\_\_\_\_\_ (2)

c  $\frac{m^2 \times m^5}{m} =$

\_\_\_\_\_ (2)

7. Factorise  $12p^4q^3r + 9p^2r$

\_\_\_\_\_ (2)

8. a Expand  $2f(3f + 6)$ .

\_\_\_\_\_ (2)

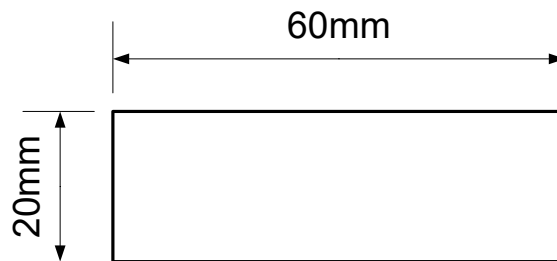
b Expand  $(x + 2)(x - 3)$ .

\_\_\_\_\_ (2)

c Simplify  $\frac{6m^4}{2m}$ .

\_\_\_\_\_ (2)

9. Look at the rectangle below.



a What is the perimeter of the rectangle in centimetres?

\_\_\_\_\_ cm (2)

b The length of the rectangle is increased by 20%. What is the area of the new rectangle?

\_\_\_\_\_ cm<sup>2</sup> (3)