

AQA - Algebra – GCSE 2022 Mathematics1. *June/2022/Paper_8300/1F/No.2* P is double r .

Circle the correct formula.

[1 mark]

$P = \frac{r}{2}$

$P = r + 2$

$P = r - 2$

$P = 2r$

2. *June/2022/Paper_8300/1F/No.19*(a) Work out $\frac{3^{12}}{3^7}$

Give your answer as a whole number.

[2 marks]

Answer _____

(b) Simplify $8 \times 2^6 \times 2^4$

Give your answer as a power of 2

[2 marks]

Answer _____

3. June/2022/Paper_8300/1F/No.26

Solve $\frac{2w}{15} = \frac{4}{5}$

[2 marks]

$w =$ _____

4. June/2022/Paper_8300/1H/No.1

Which of these is the equation of a straight line?

Circle your answer.

[1 mark]

$y = 6x^2$

$y = x - 6$

$y = x^2 + 6$

$y = \frac{6}{x}$

5. June/2022/Paper_8300/1H/No.6

(a) Work out $\frac{3^{12}}{3^7}$

Give your answer as a whole number.

[2 marks]

Answer _____

(b) Simplify $8 \times 2^6 \times 2^4$

Give your answer as a power of 2

[2 marks]

Answer _____

6. June/2022/Paper_8300/1H/No.13

Solve $\frac{2w}{15} = \frac{4}{5}$

[2 marks]

$w =$ _____

7. June/2022/Paper_8300/1H/No.18

$$12x^3 + 7x^2 + 3x - 10 \equiv 2(ax^3 + x^2 + 2x - 5) + x(bx + c)$$

Work out the values of a , b and c .

[3 marks]

$a =$ _____ $b =$ _____ $c =$ _____

8. June/2022/Paper_8300/1H/No.20

Rearrange $y = \frac{5x+9}{x}$ to make x the subject.

[4 marks]

Answer _____

9. June/2022/Paper_8300/1H/No.24

(a) Simplify fully $\frac{6}{a} - \frac{11}{4a}$

[2 marks]

Answer _____

(b) Simplify fully $(y^2 - 3y) \times \frac{y^2 + 10y + 21}{y^2 - 9}$

[4 marks]

Answer _____