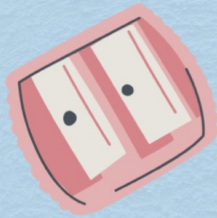
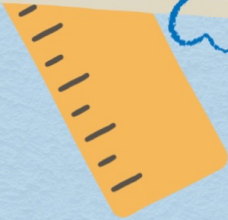
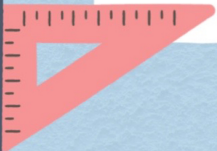


Indices (edexcel)



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1. (a) Write down the value of a^0 where $a > 0$.

$$a^0 = 1$$

[1]

- (b) Simplify fully $\frac{2w^2}{11w^7} \times \frac{11w^5}{11w^7}$.

[1]

- (c) Simplify fully $(4y^3)^{\frac{3}{2}}$.

$$8y^{12}$$

[2]

2. Simplify fully $(125a^{\frac{3}{2}})^{\frac{2}{3}}$.

[2]

3. Simplify $\frac{(25x^4y^2)^{\frac{3}{2}}}{25x^3}$.

$$\frac{125x^6y^3}{25x^3} = 5x^3y^3$$

[3]

4. Simplify fully $\frac{30x^3y^4}{5xy^3}$.

$$6x^2y$$

[2]

5.(a) Simplify fully $\frac{12x^{12}y^3}{6x^4y}$. [2]

$$= 2x^8y^2$$

(b) Simplify fully $(2a^5b^3)^4$. [2]

$$16a^{20}b^{12}$$

6. (a) Simplify fully $(5a^2b^3)^2$. [2]

$$25a^4b^6$$

(b) Simplify fully $\frac{(9x^4y^2)^{\frac{1}{2}}}{3x^2y^{-4}}$. [2]

$$\frac{3x^2y}{3x^2y^{-4}} = y^5$$

7. Simplify $2a^3 \times 4a^3$. [2]

$$8a^6$$

8. Simplify $\frac{(3x^2y^3)^3}{9xy^2}$.

$$\frac{3^3 x^6 y^9}{9xy^2} = 3x^5y^7$$

[3]

9. (a) Simplify $m^{12} \div m^3$.

$$m^{12-3} = m^9$$

[1]

(b) Simplify fully $(125p^9w^3)^{\frac{2}{3}}$.

$$= 25p^6w^2$$

[2]

10. (a) Simplify $3w^7y^{-3} \times 4w^2y^3$.

$$= 12w^9$$

[2]

(b) Simplify $(25x^{\frac{2}{5}})^{\frac{3}{2}}$.

$$= 125x^6$$

[2]