



N5 - Expressions & Formulae

Worksheet 3

Silver Level



Outcome 1 - Multiplication & Division of Indices

Write each of the following in their simplest index form...

1

$$\frac{x^6 \times x^3}{x^4}$$

2

$$\frac{a^5 \times a^8}{a}$$

3

$$\frac{p^{17} \times p^{10}}{p^{18}}$$

4

$$\frac{4k^6 \times 20k^4}{5k^7}$$

5

$$\frac{4y^9 \times 4y^5}{8y^4}$$

6

$$\frac{2r^5 \times 3r^7}{6r^{12}}$$

Outcome 2 - More Laws of Indices

Write down the value of...

1

$$v^0$$

2

$$17^0$$

Rewrite the following with negative indices...

3

$$\frac{1}{g^7}$$

4

$$\frac{1}{4^{10}}$$

Rewrite the following with positive indices...

5

$$k^{-4}$$

6

$$8^{-1}$$

Outcome 3 - Calculations using Scientific Notation

Use your calculator to answer the following giving your answer in scientific notation...

1

$$2 \cdot 2 \times 10^{12} \times 8 \times 10^6$$

2

$$8 \cdot 26 \times 10^7 \times 5 \cdot 6 \times 10^8$$

3

$$1 \cdot 611 \times 10^{12} \div 5 \cdot 37 \times 10^2$$