

Year 10 Mathematics Worksheet 5

Write the answers in your Exercise Book.

Numbers

1. Write the following in base-index form using the numbers in brackets as the base.

(a) 49 (7) (1 mark)

(b) 243 (3) (1 mark)

(c) $\frac{1}{16}$ (2) (1 mark)

2. Write the following in simplest base-index form.

(a) $h \times h \times h \times h$ (1 mark)

(b) $a \times a \times b \times a \times b$ (1 mark)

3. Evaluate the following. [*Leave your answers in base index form*]

(a) $2^3 \times 2^5$ (1 mark)

(b) $5^4 \div 5^{-2}$ (1 mark)

4. Simplify the following.

(a) $r^3 \times r^4$ (1 mark)

(b) $a^3 \div a^2$ (1 mark)

(c) $\frac{28pq}{7q}$ (1 mark)

(d) $3p^2q \times 5pq^3$ (1½ marks)

(e) $\frac{-3x^2 \times 4y}{-xy}$ (1½ marks)