

Rules of Indices Review

$$1 \quad x^p \times x^q = x^{p+q}$$

$$2 \quad x^p \div x^q = x^{p-q}$$

$$3 \quad (x^p)^q = x^{p \times q}$$

$$4 \quad x^1 = x$$

$$5 \quad x^0 = 1$$

$$6 \quad x^{-p} = \frac{1}{x^p}$$

$$7 \quad x^{\frac{1}{p}} = \sqrt[p]{x}$$

$$8 \quad x^{p/q} = (\sqrt[q]{x})^p$$

Exercise

$$1) \quad 2x^2 \times 3x^3 = 6x^5$$

$$2) \quad 10x^{10} \div 5x^5 = 2x^5$$

$$3) \quad (3x^3)^3 = 27x^9$$

$$4) \quad 2^1 = 2$$

$$5) \quad 6^0 = 1$$

$$6) \quad 3^{-4} = \frac{1}{3^4} = \frac{1}{81}$$

$$7) \quad 125^{\frac{1}{3}} = \sqrt[3]{125} = 5$$

$$8) \quad 16^{\frac{5}{4}} = (\sqrt[4]{16})^5 = 2^5 = 32$$

Use of a Calculator

$$\frac{\sqrt{8.12 + 7.6}}{25.1 \times 3.8} = 0.04156894$$

$$\frac{(37.2 - 6.4)}{(5.3 \times 2.6)} = 2.235123367$$
