

# Indices Test 4

- 1)  $3p^3 \times 4p^6 = 12p^9$
- 2)  $10x^2 \times 2x^{10} = 20x^{12}$
- 3)  $8p^8 \div 2p^2 = 4p^6$
- 4)  $25y^8 \div 5y^7 = 5y$
- 5)  $(2p^2)^3 = 8p^6$
- 6)  $(3q^3)^2 = 9q^6$
- 7)  $4^1 = 4$
- 8)  $3^0 = 1$
- 9)  $2^{-4} = \frac{1}{2^4} = \frac{1}{16}$
- 10)  $81^{\frac{1}{2}} = \sqrt{81} = 9$
- 11)  $4^{5/2} = (2\sqrt{4})^5 = 2^5 = 32$
- 12)  $36^{-\frac{1}{2}} = \frac{1}{36^{1/2}} = \frac{1}{\sqrt{36}} = \frac{1}{6}$
- 13)  $8^{-\frac{2}{3}} = \frac{1}{8^{2/3}} = \frac{1}{(\sqrt[3]{8})^2} = \frac{1}{2^2} = \frac{1}{4}$

$$14) 8h^2k^3 \times 2h^3k^2 = 16h^5k^5$$

$$15) 10x^{10}y^{10} \div 5x^2y^5 = 2x^8y^5$$