National 5: Indices

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Answers

Q1 **a)** x^4 **b)** $\frac{1}{x^2}$ **c)** $\frac{1}{x^6}$

d) $6x$ **e)** $\frac{2}{3x^2}$ **f)** $\frac{1}{2x^3}$

Q2 **a)** x^3y^3 **b)** $64x^6y^3$ **c)** $\frac{8}{27}x^6y^{12}$

d) x^{11} **e)** $\frac{1}{x^{10}}$ **f)** 1

g) $\frac{36}{x^2}$ **h)** x^6 **i)** $\frac{1}{x^6}$

Q3 **a)** $x^{\frac{1}{2}}$ **b)** $x^{\frac{1}{3}}$ **c)** $x^{\frac{5}{3}}$

d) $x^{-\frac{1}{2}}$ **e)** $x^{-\frac{1}{3}}$ **f)** $x^{-\frac{2}{3}}$

Q4 **a)** 3 **b)** $\frac{1}{3}$ **c)** 2

d) $\frac{1}{2}$ **e)** 64 **f)** $\frac{1}{81}$

g) 8 **h)** $\frac{1}{16}$ **i)** $\frac{1}{1000}$

j) $\frac{1}{8}$ **k)** $\frac{3}{5}$ **l)** $\frac{16}{9}$

Q5 **a)** $x^4 + 3x^2$ **b)** $x^{-2} + 1$ **c)** $2x + 1$

d) $x - 5$ **e)** $2x - 6x^{-1}$ **f)** $3x^2 + 6x^{\frac{1}{4}}$

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