

a Work out $\left(\frac{3}{2}\right)^{-3}$ $\frac{8}{27}$ a fraction cubed, negative index	b Work out $32^{\frac{1}{5}}$ 2 a fifth root	c Work out $16^{\frac{5}{4}}$ 32 root, then a power above 1	d Work out $2^{-1} + 2^{-2}$ $\frac{3}{4}$ adding negative powers
e Work out $0.25^{-\frac{1}{2}}$ 2 a decimal base, negative fraction	f Write $2^5 \times 8^2$ as a power of 2 2^{11} two bases made one	g Write $\frac{1}{4\sqrt{2}}$ as a power of 2 $2^{-\frac{5}{2}}$ a root and a reciprocal as a power	h Solve $9^x = \frac{1}{27}$ $x = -\frac{3}{2}$ a negative fractional solution
i Solve $2^{3x} = 4^{x+1}$ $x = 2$ a letter in both indices	j Which is larger, 2^{30} or 3^{20} ? 3^{20} comparing with a common index	k Write $2^{n+3} - 2^n$ in the form $k \times 2^n$ 7×2^n taking out a common power	l $5^{x+2} = 75$. Work out 5^x $5^x = 3$ working back through an index law

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