

Change of Base

- (a) Write 4^5 as a power of 2
- (b) Write 8^3 as a power of 2.
- (c) Write 16^3 as a power of 4.
- (d) Write 27^4 as a power of 3.
- (e) Write 125^3 as a power of 5.

- (a) $2^6 \times 2^4 = 4^n$. Find n .
- (b) $8^n = 2^3 \times 2^9$. Find n .
- (c) $3^n = 3^3 \times 9^2$. Find n .
- (d) $2^n = \frac{16}{2^3}$. Find n .
- (e) $\frac{3^8}{81} = 3^n$. Find n .

- (a) $4^3 \times 16 = 2^n$. Find n .
- (b) $243 \times 9^2 = 3^n$. Find n .
- (c) $2^n \times 4^3 = 1024$. Find n .
- (d) $\frac{9^2 \times 81^{1/2}}{3^2} = 3^n$. Find n .
- (e) $\frac{2^{2n} \times 64}{4^2} = 2^3$. Find n .

- (a) $128 = 4^{2x} \times 2^x$. Find x .
- (b) $\frac{1}{\sqrt[3]{9^4}} = 3^x$. Find x .
- (c) $16^{1/5} \times 2^x = 8^{3/4}$. Find x .
- (d) $\left(2^{1/2}\right)^x = \frac{32}{2^2}$. Find x .
- (e) $243 = \frac{3^x}{\sqrt[3]{81}}$. Find x .

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