

mobius

Exponents - Power Law - Prime Base with Variable Power to Composite Base with



Solve for the missing exponent (x) in reduced form

$$3^n = 27^x$$

2 Solve for the missing exponent (x) in reduced form

$$5^n = 25^x$$

$$\begin{vmatrix} A & x & B \\ x & = \frac{6n}{3} \begin{vmatrix} x & = \frac{6n}{1} \end{vmatrix} x = 3n \begin{vmatrix} x & = \frac{6}{n} \end{vmatrix} x = \frac{3n}{3} \begin{vmatrix} x & = \frac{1}{2n} \end{vmatrix} x = \frac{n}{2} \begin{vmatrix} x & = \frac{n}{2} \end{vmatrix} x = 4n \begin{vmatrix} x & = \frac{2n}{2} \end{vmatrix} x = \frac{5n}{2} \begin{vmatrix} x & = \frac{5n}{2} \end{vmatrix} x = 2n$$

Solve for the missing exponent (x) in reduced form

$$\left|\stackrel{ extsf{A}}{x}=rac{1}{3n}
ight|^{ extsf{B}}x=rac{9}{n}$$

Solve for the missing exponent (x) in reduced form

$$\mathbf{2}^n = \mathbf{8}^{x} \begin{vmatrix} \mathbf{\hat{x}} = n \end{vmatrix}^{\mathbf{\hat{x}} = 3n}$$

$$6^n = 36^x$$

 $x = \frac{n}{2} \begin{vmatrix} \mathbf{r} & \mathbf{r} \\ x = 12n \end{vmatrix} = \frac{n}{2} \begin{vmatrix} \mathbf{r} & \mathbf{r} \\ x = n \end{vmatrix} = \frac{4}{n} \begin{vmatrix} \mathbf{r} & \mathbf{r} \\ x = 7n \end{vmatrix} = \frac{1}{2n}$

form

$$egin{array}{c|c} \mathsf{A} & \mathsf{B} & \mathsf{C} \ x = 8n x = rac{n}{3} x = rac{3n}{2} \end{array}$$

Solve for the missing exponent (x) in reduced form

$$3^n = 9^x$$

$$x=rac{6n}{1}x=rac{3}{2n}x=rac{n}{2}$$
 $x=rac{n}{2}$ $x=rac{n}{2}$

$$2^n = 16^x$$

$$egin{array}{c|cccc} n & A & x=12n & B & x=n \ \hline C & x=rac{n}{4} & D & x=8n \ \hline E & x=rac{2n}{4} & F & x=rac{1}{2n} \end{array}$$

7 Solve for the missing exponent (x) in reduced form

$$2^n = 32^x$$

Solve for the missing exponent (x) in reduced form

$$4^n = 16^x$$

$oxed{A} \qquad x = 3 n$	В	x = 20n	Α
$oxed{C} x = rac{n}{3}$	D	$x=rac{n}{5}$	$oxed{x}$
$oxed{E} \qquad x = 5 n$	F	$x=rac{2n}{5}$	

$$\left|x=rac{4n}{2}
ight|^{\mathtt{B}}x=rac{6n}{1}\left|x=rac{n}{2}
ight|^{\mathtt{D}}x=rac{4}{2n}\left|x=rac{3n}{2}
ight|^{\mathtt{F}}x=rac{n}{3}$$

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