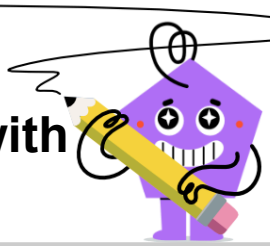
Name



Exponents - Power Law - Prime Base with Variable Power to Unknown Exponent Base with Known Power

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

$$3^n = (3^x)^2$$

A	B	C	D	E	F
$x = \frac{1}{2n}$	$x = \frac{3n}{3}$	$x = \frac{2n}{3}$	$x = \frac{6n}{1}$	$x = \frac{n}{2}$	$x = n$

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

$$5^n = (5^x)^3$$

A	B	C	D	E	F
$x = \frac{1}{3n}$	$x = \frac{3n}{2}$	$x = \frac{n}{3}$	$x = \frac{6n}{1}$	$x = 8n$	$x = \frac{5}{2n}$

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

$$4^n = (4^x)^3$$

A	B	C	D	E	F
$x = 2n$	$x = \frac{3n}{2}$	$x = 8n$	$x = \frac{n}{3}$	$x = \frac{4n}{2}$	$x = \frac{6n}{1}$

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

$$6^n = (6^x)^3$$

A	B	C	D	E	F
$x = \frac{n}{3}$	$x = \frac{1}{3n}$	$x = n$	$x = \frac{6}{n}$	$x = 7n$	$x = \frac{6n}{1}$

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

$$2^n = (2^x)^3$$

A	B	C	D	E	F
$x = 3n$	$x = \frac{2}{3n}$	$x = \frac{3n}{3}$	$x = \frac{n}{3}$	$x = \frac{9}{n}$	$x = \frac{9n}{1}$

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

$$5^n = (5^x)^2$$

A	B	C	D	E	F
$x = \frac{1}{2n}$	$x = \frac{n}{2}$	$x = \frac{5n}{2}$	$x = 2n$	$x = \frac{2n}{2}$	$x = 6n$

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

$$2^n = (2^x)^2$$

A	B	C	D	E	F
$x = \frac{2n}{2}$	$x = 3n$	$x = n$	$x = \frac{1}{2n}$	$x = \frac{2}{2n}$	$x = \frac{n}{2}$

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

$$4^n = (4^x)^2$$

A	B	C	D	E	F
$x = \frac{6n}{1}$	$x = \frac{n}{2}$	$x = \frac{1}{2n}$	$x = 9n$	$x = \frac{2n}{3}$	$x = \frac{4}{3n}$