mobius

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

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

$$32^n = 8^x$$

A	B	C	D	E	F
$x = 5n$	$x = \dfrac{2}{3n}$	$x = \dfrac{6}{5n}$	$x = \dfrac{5n}{3}$	$x = \dfrac{5}{10n}$	$x = 6n$

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

$$4^n = 8^x$$

A	B	C
$x = \dfrac{6n}{3}$	$x = \dfrac{9}{2n}$	$x = \dfrac{9n}{2}$

D	E	F
$x = \dfrac{2n}{3}$	$x = \dfrac{2n}{6}$	$x = 3n$

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

$$27^n = 81^x$$

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

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

$$8^n = 16^x$$

A	B	C	D	E	F
$x = \dfrac{2n}{4}$	$x = \dfrac{3n}{4}$	$x = \dfrac{9n}{4}$	$x = 4n$	$x = 5n$	$x = \dfrac{12n}{3}$

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

$$16^n = 64^x$$

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

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

$$81^n = 27^x$$

A	B	C	D	E	F
$x = 7n$	$x = \dfrac{6n}{4}$	$x = \dfrac{3}{3n}$	$x = \dfrac{4n}{3}$	$x = \dfrac{6}{4n}$	$x = \dfrac{4}{8n}$

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

$$27^n = 9^x$$

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

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

$$4^n = 32^x$$

A		B	
$x = \dfrac{4n}{5}$		$x = 15n$	
C	$x = 4n$	**D**	$x = \dfrac{2}{4n}$
E	$x = \dfrac{10}{2n}$	**F**	$x = \dfrac{2n}{5}$