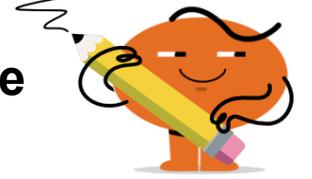# Exponents - Power Law - Algebra (Base of Constant is Power, Solve Root X)

1 Solve for x

$$11^{\sqrt{x}} = 121^6$$

A	B	C	D	E	F
$x = 158$	$x = 81$	$x = 4$	$x = 49$	$x = 200$	$x = 144$

2 Solve for x

$$3^{\sqrt{x}} = 9^7$$

A	B	C	D	E	F
$x = 144$	$x = 169$	$x = 196$	$x = 9$	$x = 121$	$x = 4$

3 Solve for x

$$3^{\sqrt{x}} = 9^5$$

A	B	C	D	E	F
$x = 4$	$x = 100$	$x = 64$	$x = 130$	$x = 25$	$x = 196$

4 Solve for x

$$5^{\sqrt{x}} = 25^5$$

A	B	C	D	E	F
$x = 100$	$x = 36$	$x = 49$	$x = 169$	$x = 64$	$x = 16$

5 Solve for x

$$7^{\sqrt{x}} = 49^2$$

A	B	C	D	E	F
$x = 15$	$x = 16$	$x = 121$	$x = 4$	$x = 7$	$x = 9$

6 Solve for x

$$5^{\sqrt{x}} = 25^7$$

A	B	C	D	E	F
$x = 367$	$x = 234$	$x = 121$	$x = 36$	$x = 100$	$x = 196$

7 Solve for x

$$2^{\sqrt{x}} = 8^2$$

A	B	C	D	E	F
$x = 36$	$x = 100$	$x = 9$	$x = 25$	$x = 81$	$x = 42$

8 Solve for x

$$11^{\sqrt{x}} = 121^4$$

A	B	C	D	E	F
$x = 40$	$x = 64$	$x = 169$	$x = 49$	$x = 100$	$x = 88$