Math worksheet on *'Exponents - Power Law - Variable Exponent Base with Known Power to Power of Ten Base with Unknown Power (Level 1)'*. Part of a broader unit on *'Exponents - Negative, Fractional, and Power Law'*

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1 Solve for the missing exponent (?)

$$(10^2)^9 = 1000^?$$

a	b	c	d	e	f
$? = 3$	$? = 15$	$? = 7$	$? = 8$	$? = 6$	$? = 1$

2 Solve for the missing exponent (?)

$$(10^3)^6 = 100^?$$

a	b	c	d	e	f
$? = 2$	$? = 1$	$? = 18$	$? = 5$	$? = 9$	$? = 13$

3 Solve for the missing exponent (?)

$$(10^2)^8 = 10000^?$$

a	b	c	d	e	f
$? = 2$	$? = 11$	$? = 8$	$? = 5$	$? = 1$	$? = 4$

4 Solve for the missing exponent (?)

$$(10^2)^6 = 1000^?$$

a	b	c	d	e	f
$? = 12$	$? = 4$	$? = 13$	$? = 3$	$? = 2$	$? = 9$

5 Solve for the missing exponent (?)

$$(10^4)^6 = 100^?$$

a	b	c	d	e	f
$? = 12$	$? = 21$	$? = 11$	$? = 10$	$? = 20$	$? = 6$

6 Solve for the missing exponent (?)

$$(10^2)^{12} = 10000^?$$

a	b	c	d	e	f
$? = 10$	$? = 3$	$? = 15$	$? = 6$	$? = 11$	$? = 12$

7 Solve for the missing exponent (?)

$$(10^3)^8 = 10000^?$$

a	b	c	d	e	f
$? = 6$	$? = 11$	$? = 12$	$? = 10$	$? = 2$	$? = 7$