Math worksheet on *'Logarithms - Solve Exponent Equation (Fraction Base) (Level 1)'*. Part of a broader unit on *'Logarithms - Intro'*

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1 Solve for the missing exponent

$$\frac{1}{2}^{x} = \frac{1}{16}$$

a x = 3	**b** x = 13
c x = 4	**d** x = -5
e x = -1	**f** x = 9

2 Solve for the missing exponent

$$\frac{1}{2}^{x} = \frac{1}{4}$$

a x = -2	**b** x = 4
c x = 0	**d** x = 2
e x = -6	**f** x = 9

3 Solve for the missing exponent

$$\frac{1}{10}^{x} = \frac{1}{100}$$

a x = 7	**b** x = -4
c x = -8	**d** x = 10
e x = 2	**f** x = 1

4 Solve for the missing exponent

$$\frac{1}{3}^{x} = \frac{1}{81}$$

a x = 6	**b** x = 1
c x = -4	**d** x = 4
e x = 8	**f** x = 5

5 Solve for the missing exponent

$$\frac{1}{6}^{x} = \frac{1}{216}$$

a x = 3	**b** x = 2
c x = -1	**d** x = -7
e x = 8	**f** x = -2

6 Solve for the missing exponent

$$\frac{1}{3}^{x} = \frac{1}{27}$$

a x = 7	**b** x = -6
c x = -3	**d** x = -5
e x = 3	**f** x = 12

7 Solve for the missing exponent

$$\frac{1}{3}^{x} = \frac{1}{9}$$

a x = 0	**b** x = 10
c x = 7	**d** x = 2
e x = -5	**f** x = -1

