

equations and reasoning 1

Date _____ Period _____

Find the value of x that makes the equation true.

1) $\frac{x}{2} = \frac{3}{8}$

{0.75}

2) $\frac{9}{3} = \frac{b}{6}$

{18}

3) $\frac{7}{a} = 3$

{2.33}

4) $\frac{3}{7} = \frac{5n}{3}$

{0.26}

5) $\frac{n+4}{9} = \frac{8}{6}$

{8}

6) $\frac{x-6}{7} = \frac{3}{6}$

{9.5}

7) $\frac{7}{k-3} = \frac{3}{2}$

{7.67}

8) $\frac{7}{4} = \frac{10}{r+1}$

{4.71}

9) $\frac{9}{4} = \frac{3}{x-1}$

{2.33}

10) $\frac{3}{x-5} = \frac{5}{6}$

{8.6}

$$11) \frac{5}{v+5} = \frac{10}{9}$$

{-0.5}

$$12) \frac{a-5}{7} = \frac{4}{8}$$

{8.5}

$$13) \frac{n}{n-8} = \frac{7}{10}$$

{-18.67}

$$14) \frac{n+1}{2} = \frac{n}{10}$$

{-1.25}

$$15) \frac{8}{6} = \frac{x}{x-10}$$

{40}

$$16) \frac{n}{n-5} = \frac{7}{3}$$

{8.75}

$$17) \frac{8}{n} = \frac{2}{n-6}$$

{8}

$$18) \frac{n-4}{n} = \frac{5}{4}$$

{-16}

$$19) \frac{5}{7} = \frac{x+1}{x+9}$$

{19}

$$20) \frac{5}{9} = \frac{p-8}{p-6}$$

{10.5}

$$21) \frac{n+8}{7} = \frac{n-10}{8}$$

{-134}

$$22) \frac{8}{3} = \frac{n+8}{n-6}$$

{14.4}

Find the value of x that makes the equation true.

$$23) 9 = \sqrt{x} + 9$$

$\{0\}$

$$24) 9 = 7 + \sqrt{r}$$

$\{4\}$

$$25) \sqrt{x-6} + 7 = 14$$

$\{55\}$

$$26) \sqrt{p-8} = 2$$

$\{12\}$

$$27) -8\sqrt{x} = -24$$

$\{9\}$

$$28) \sqrt{m} = 5$$

$\{25\}$

Find the value of x that makes the equation true.

$$29) 9 = \sqrt{\frac{k}{10}}$$

$\{810\}$

$$30) 1 = \sqrt{n-5}$$

$\{6\}$

$$31) 5 = \sqrt{-5-6b}$$

$\{-5\}$

$$32) 10 = \sqrt{5k}$$

$\{20\}$

$$33) \sqrt{\frac{x}{8}} = 10$$

$\{800\}$

$$34) 8 = \sqrt{-4-17k}$$

$\{-4\}$