

Solving Rational Equations

Solve each equation. Remember to check for extraneous solutions.

1)
$$\frac{1}{6k^2} = \frac{1}{3k^2} - \frac{1}{k}$$

3)
$$\frac{1}{6b^2} + \frac{1}{6b} = \frac{1}{b^2}$$

5)
$$\frac{1}{x} = \frac{6}{5x} + 1$$

7)
$$\frac{1}{v} + \frac{3v+12}{v^2-5v} = \frac{7v-56}{v^2-5v}$$

9)
$$\frac{1}{n-8} - 1 = \frac{7}{n-8}$$

$$11) 1 = \frac{v+2}{v-4} + \frac{7v-42}{v-4}$$

$$13) 1 + \frac{x^2 - 5x - 24}{3x} = \frac{x-6}{3x}$$

$$15) \frac{n+5}{n+8} = 1 + \frac{6}{n+1}$$

$$17) \frac{1}{x^2 - 5x} = \frac{x+7}{x} - 1$$

$$19) \frac{p+5}{p^2+p} = \frac{1}{p^2+p} - \frac{p-6}{p+1}$$