

Algebra 1.5

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Solve each equation. Remember to check for extraneous solutions.

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

2)
$$\frac{r+3}{5r} = \frac{1}{5r} + \frac{r-1}{r}$$

3)
$$\frac{x-4}{2x^2} = \frac{1}{4x^2} + \frac{1}{4x}$$

4)
$$\frac{1}{3n} = \frac{1}{6n} - \frac{n-1}{6n^2}$$

5)
$$\frac{1}{v^2} = \frac{1}{6v} - \frac{1}{6v^2}$$

6)
$$\frac{2}{5k^2} + \frac{1}{5k} = \frac{1}{5k^2}$$

$$7) \frac{1}{n} = \frac{n+4}{5n^2} + \frac{1}{5n}$$

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

$$9) \frac{3}{2n} + \frac{n+1}{6n^2} = \frac{1}{n}$$

$$10) \frac{2k+8}{3k} = \frac{1}{6} + \frac{k-5}{6k}$$

$$11) \frac{x-3}{x^2} = \frac{1}{x} + \frac{1}{2x}$$

$$12) \frac{1}{v} = \frac{v+2}{v^2} - \frac{v-6}{v^2}$$

$$13) \frac{2}{5} = \frac{1}{5x} + \frac{6}{5}$$

$$14) \frac{1}{2x} + \frac{1}{2x^2} = \frac{4}{x^2}$$

$$15) \frac{4}{p} + \frac{6}{p^2} = \frac{6p - 36}{p^2}$$

$$16) \frac{a - 5}{a^2} = \frac{5a - 20}{2a^2} - \frac{1}{2a}$$

$$17) \frac{5}{3} = \frac{2a + 2}{a} + \frac{1}{3a}$$

$$18) \frac{1}{b} + \frac{2}{b^2} = \frac{5}{b}$$

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

$$20) \frac{3}{2m^2} + \frac{1}{m} = \frac{1}{2m^2}$$

$$21) \frac{2}{n} + \frac{1}{3} = \frac{3}{n}$$

$$22) \frac{1}{r^2} = \frac{3}{5r} + \frac{1}{5r^2}$$

$$23) \frac{n-6}{6n} + \frac{1}{6} = \frac{n-1}{6n}$$

$$24) \frac{n+6}{4n^2} - \frac{1}{n^2} = \frac{2}{n^2}$$

$$25) \frac{1}{2b^2} = \frac{b+3}{2b^2} + \frac{1}{b^2}$$