

Practice for Situational Problem Nov. 2020

Solve each equation.

$$1) \frac{n-5}{n^2+4n-12} = \frac{1}{n^2+4n-12} - \frac{1}{3}$$

$$3) \frac{1}{n^2+9n+20} = \frac{1}{n+5} - \frac{3n^2-15n-72}{n^2+9n+20}$$

$$6) \frac{7}{n^2} = \frac{2n+14}{n^3-8n^2} - \frac{n^2+n-2}{n^3-8n^2}$$

$$12) \frac{x-6}{x} = \frac{21x+28}{x} - \frac{x+8}{x^2+2x}$$

$$13) \frac{1}{3x^2-21x+36} = \frac{1}{3x-9} - \frac{x^2-2x-15}{3x^2-21x+36}$$

$$27) \frac{x-5}{2x^2-4x} + \frac{x^2-6x-7}{2x^2-4x} = \frac{1}{x^2-2x}$$

$$28) \frac{n^2-25}{n^2-11n+28} + \frac{n^2+10n+16}{n^2-11n+28} = \frac{1}{n-7}$$

$$52) \frac{1}{n} + \frac{8n^2-55n-7}{4n^2+8n} = \frac{n-7}{n}$$

Answers

$$1) \{3, -10\}$$

$$3) \left\{ \frac{25}{3}, -3 \right\}$$

$$6) \{6, -12\}$$

$$12) \left\{ -\frac{5}{4}, -\frac{12}{5} \right\}$$

$$13) \{5, -2\}$$

$$27) \{7, -2\}$$

$$28) \left\{ \frac{1}{2}, -5 \right\}$$

$$52) \left\{ 3, \frac{19}{4} \right\}$$