Precalculus 12 - Mr. Collins

Solving Rational Equations - Practice

Solve each equation. Remember to check for extraneous solutions.

1) $1 + \frac{1}{v-1} = \frac{3}{v-1}$

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

3) $\frac{1}{6v-2} + 1 = \frac{3v-18}{6v-2}$

4) $1 - \frac{x+5}{x-1} = \frac{x+6}{x-1}$

5) $\frac{8}{p-8} = \frac{6}{p-3} - \frac{p-6}{p^2-11p+24}$

6) $\frac{1}{r-4} = 1 + \frac{6}{r-4}$

7) $\frac{1}{3n^2+24n} + \frac{2}{3n} = \frac{1}{n^2+8n}$

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

9) $\frac{1}{n^2-1} + \frac{7n}{n^2-1} = \frac{1}{n+1}$

10) $\frac{n-6}{n+6} + \frac{1}{n+6} = 7$

Precalculus 12 - Mr. Collins

Solving Rational Equations - Practice

Solve each equation. Remember to check for extraneous solutions.

1) $1 + \frac{1}{v-1} = \frac{3}{v-1}$

$\{3\}$

2) $1 + \frac{1}{3n} = \frac{5}{3n}$ $\left\{\frac{4}{3}\right\}$

3) $\frac{1}{6v-2} + 1 = \frac{3v-18}{6v-2}$ $\left\{-\frac{17}{3}\right\}$

4) $1 - \frac{x+5}{x-1} = \frac{x+6}{x-1}$

$\{-12\}$

5) $\frac{8}{p-8} = \frac{6}{p-3} - \frac{p-6}{p^2-11p+24}$

$\{-6\}$

6) $\frac{1}{r-4} = 1 + \frac{6}{r-4}$

$\{-1\}$

7) $\frac{1}{3n^2+24n} + \frac{2}{3n} = \frac{1}{n^2+8n}$

$\{-7\}$

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

9) $\frac{1}{n^2-1} + \frac{7n}{n^2-1} = \frac{1}{n+1}$ $\left\{-\frac{1}{3}\right\}$

10) $\frac{n-6}{n+6} + \frac{1}{n+6} = 7$ $\left\{-\frac{47}{6}\right\}$