

Solving Rational Expressions

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

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

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

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

4) $\frac{m-1}{4m} + \frac{m+4}{8m} = \frac{1}{2}$

5) $\frac{v-4}{v^2+3v} - \frac{4}{v} = \frac{v+2}{v^2+3v}$

6) $\frac{4}{x-4} = \frac{1}{x^2-2x-8} + \frac{1}{x-4}$

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 $\{3\}$

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

 $\left\{\frac{3}{2}\right\}$

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

 $\{3\}$

4) $\frac{m-1}{4m} + \frac{m+4}{8m} = \frac{1}{2}$

 $\{2\}$

5) $\frac{v-4}{v^2+3v} - \frac{4}{v} = \frac{v+2}{v^2+3v}$

 $\left\{-\frac{9}{2}\right\}$

6) $\frac{4}{x-4} = \frac{1}{x^2-2x-8} + \frac{1}{x-4}$

 $\left\{-\frac{5}{3}\right\}$