

Solving Rational Equations

Block: _____ Mark Out Of 16 _____

Solve each equation. Remember to check for extraneous solutions.

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

2) $\frac{1}{b} = \frac{5b + 30}{6b^2} + \frac{1}{3b^2}$

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

4) $\frac{4}{k^2 + 11k + 24} = \frac{1}{k+8} - \frac{1}{k^2 + 11k + 24}$

$$5) \frac{1}{n^2 - 10n} = \frac{n^2 - 7n + 10}{5n^2 - 50n} + \frac{1}{5n^2 - 50n}$$

$$6) \frac{x+1}{2x-2} + \frac{1}{2x-2} = \frac{x+7}{2x-16}$$

$$7) \frac{6}{r^2 - 3r} = \frac{r+10}{r-3} - \frac{r+10}{r}$$

$$8) \frac{5}{3} - \frac{3x^2 + 26x + 16}{x^2 + 14x + 40} = \frac{x^2 - 3x + 2}{3x^2 + 42x + 120}$$