

## Solving Rational Equations Day 3 LL

Solve each equation. Remember to check for extraneous solutions.

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

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

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

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

5)  $\frac{4}{p^2+3p} = \frac{1}{p^2+3p} + \frac{4}{p}$

6)  $\frac{1}{b^2+5b} + \frac{4}{b} = \frac{5}{b^2+5b}$

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

8)  $\frac{1}{m+6} - \frac{4}{m^2+10m+24} = \frac{1}{m^2+10m+24}$

$$9) \frac{6k+24}{k} = \frac{1}{k^2} + \frac{k+3}{k^2}$$

$$10) \frac{5}{r^2} = \frac{1}{r^2} - \frac{r+4}{r}$$

$$11) \frac{3}{4n} = \frac{2n^2 - 20n + 50}{n^2} + \frac{1}{4n}$$

$$12) \frac{2}{3x} = \frac{1}{3x^3} + \frac{1}{3x}$$

$$13) \frac{n^2 - 2n - 15}{n^2 - n} - \frac{n-4}{n-1} = \frac{n+5}{n^2 - n}$$

$$14) \frac{a-2}{a-3} = \frac{a-4}{a-5} - \frac{4a-5}{a^2 - 8a + 15}$$

$$15) \frac{a+1}{a^2 + 3a} + \frac{1}{a^3 + 7a^2 + 12a} = \frac{1}{a+3}$$

$$16) \frac{2n+2}{n+2} = \frac{1}{n^2 + 8n + 12} + \frac{n-4}{n+2}$$