

## Solving Rational Equations Day 3 HW

Solve each equation. Remember to check for extraneous solutions.

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

2) 
$$\frac{1}{6r} + \frac{1}{6} = \frac{1}{r}$$

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

4) 
$$\frac{1}{6p^2} = \frac{5}{p^2} + \frac{1}{3p}$$

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

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

7) 
$$\frac{6}{x^2 + 6x} = \frac{5}{x} - \frac{3}{x^2 + 6x}$$

8) 
$$\frac{4}{3n+9} = \frac{n-6}{n+3} + \frac{1}{3n+9}$$

$$9) \frac{1}{2} - \frac{x+4}{2x} = \frac{x-2}{2x^2}$$

$$10) \frac{1}{5} + \frac{6}{m^2} = \frac{m^2 + 4m + 3}{5m^2}$$

$$11) \frac{n+3}{2} = \frac{1}{2n} + \frac{n}{2}$$

$$12) \frac{p-3}{p^2} + \frac{1}{p^2} = \frac{p^2 + 7p + 6}{p^3}$$

$$13) \frac{b-6}{b-1} + \frac{1}{b-1} = \frac{b-6}{b-3}$$

$$14) \frac{5}{m^2 + 3m - 4} = \frac{1}{m^2 + 3m - 4} + \frac{m+4}{m-1}$$

$$15) \frac{r-3}{r} + \frac{1}{r^2 - 6r} = \frac{5}{r^2 - 6r}$$

$$16) \frac{1}{r^2 - 5r} = \frac{r+1}{r-5} - \frac{r+5}{r}$$