

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

$$1) \frac{4}{v} - \frac{4}{v^2} = \frac{1}{v^2} \quad \left\{ \frac{5}{4} \right\}$$

$$2) \frac{5}{4x} - \frac{5x+30}{4x} = \frac{6}{x} \quad \left\{ -\frac{49}{5} \right\}$$

$$3) \frac{1}{2x^2} + \frac{4x-5}{2x} = \frac{3x-3}{2x} \quad \{1\}$$

$$4) \frac{n^2-3n-4}{6n} = \frac{4}{3} + \frac{n^2-8n+16}{6n} \quad \left\{ -\frac{20}{3} \right\}$$

$$5) \frac{4r^2-196}{3r+7} = 8 + \frac{1}{3r+7} \quad \left\{ \frac{23}{2}, -\frac{11}{2} \right\}$$

$$6) \frac{7r^2+14r-245}{r^2+4r} = \frac{2r-10}{r} + \frac{r^2+3r-40}{r^2+4r} \quad \left\{ 5, -\frac{33}{4} \right\}$$

$$7) \frac{5x+10}{x+1} = x+7 - \frac{1}{x+1} \quad \{1, -4\}$$

$$8) \frac{n+2}{n-4} + \frac{1}{n-4} = \frac{n^2-2n-24}{n^2-11n+28} \quad \left\{ \frac{3}{2} \right\}$$

$$9) \frac{b^2+2b-8}{5b^2+16b+3} = 1 + \frac{1}{5b^2+16b+3} \quad \left\{ -2, -\frac{3}{2} \right\}$$

$$10) \frac{5}{x^2-49} = \frac{x-8}{x+7} - 1 \quad \left\{ \frac{20}{3} \right\}$$

$$11) 1 = \frac{1}{k^2+3k} - \frac{k+5}{k^2+3k} \quad \{-2\}$$

$$12) \frac{a^2-a-2}{a^2-a} - \frac{a+6}{a-1} = \frac{1}{a^2-a} \quad \left\{ -\frac{3}{7} \right\}$$

LCM's on next page

1. v^2

2. $4x$

3. $2x^2$

4. $6n$

5. $3r+7$

6. $r(r+4)$

7. $x+1$

8. $(n-4)(n-7)$

9. $5b^2+16b+3$

10. $(x-7)(x+7)$

11. $k(k+3)$

12. $a(a-1)$