

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

1) $\frac{5}{2b^2} + \frac{1}{b} = \frac{3b+12}{2b^2}$

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

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

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

5) $\frac{2x+8}{5x^2} = \frac{1}{x} + \frac{x-4}{x^2}$

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

7) $\frac{5}{4k} - \frac{1}{4k^2} = \frac{2k+3}{k^2}$

8) $1 = \frac{r+4}{3r} + \frac{1}{3r}$

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

10) $\frac{3}{4a^2} = \frac{1}{2a} - \frac{1}{2a^2}$

11) $\frac{3}{v} = \frac{v-1}{4v} - \frac{1}{4v}$

12) $\frac{1}{n} + \frac{n-3}{n} = \frac{1}{4n}$

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

14) $\frac{1}{x^2} = \frac{5}{x^2} + \frac{2}{x}$

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

16) $\frac{1}{5n} = \frac{1}{n} - \frac{1}{5}$

17) $\frac{1}{2x^2} + \frac{1}{4x} = \frac{3}{4x}$

18) $\frac{1}{3} = \frac{1}{3n} - 1$

19) $\frac{2}{m^2} + \frac{1}{2m} = \frac{1}{m}$

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

21) $\frac{2x-4}{3x} = \frac{1}{6} + \frac{1}{3}$

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

23) $\frac{1}{4} + \frac{3}{4m} = \frac{5}{4m}$

24) $\frac{2}{3} - \frac{1}{3x} = \frac{1}{x}$

Assignment

Solve each equation. Remember to check for extraneous solutions.

$$1) \frac{5}{2b^2} + \frac{1}{b} = \frac{3b+12}{2b^2}$$

$\{-7\}$

$$2) \frac{2m+4}{5m^2} - \frac{1}{5m^2} = \frac{6}{m^2} \quad \left\{ \frac{27}{2} \right\}$$

$$3) \frac{1}{2a} + \frac{1}{a} = \frac{2a+6}{3a^2} \quad \left\{ \frac{12}{5} \right\}$$

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

$$5) \frac{2x+8}{5x^2} = \frac{1}{x} + \frac{x-4}{x^2} \quad \left\{ \frac{7}{2} \right\}$$

$$6) \frac{m-2}{3m^2} = \frac{1}{3m} + \frac{5m+30}{3m^2} \quad \left\{ -\frac{32}{5} \right\}$$

$$7) \frac{5}{4k} - \frac{1}{4k^2} = \frac{2k+3}{k^2} \quad \left\{ -\frac{13}{3} \right\}$$

$$8) 1 = \frac{r+4}{3r} + \frac{1}{3r} \quad \left\{ \frac{5}{2} \right\}$$

$$9) \frac{m-2}{2m} + \frac{1}{m} = \frac{2}{m}$$

$\{4\}$

$$10) \frac{3}{4a^2} = \frac{1}{2a} - \frac{1}{2a^2} \quad \left\{ \frac{5}{2} \right\}$$

$$11) \frac{3}{v} = \frac{v-1}{4v} - \frac{1}{4v}$$

$\{14\}$

$$12) \frac{1}{n} + \frac{n-3}{n} = \frac{1}{4n} \quad \left\{ \frac{9}{4} \right\}$$

$$13) \frac{1}{3n^2} + \frac{n-1}{n^2} = \frac{2}{n^2} \quad \left\{ \frac{8}{3} \right\}$$

$$14) \frac{1}{x^2} = \frac{5}{x^2} + \frac{2}{x}$$

$\{-2\}$

$$15) \frac{p+2}{3p} - \frac{1}{p} = \frac{3}{p}$$

$\{10\}$

$$16) \frac{1}{5n} = \frac{1}{n} - \frac{1}{5}$$

$\{4\}$

$$17) \frac{1}{2x^2} + \frac{1}{4x} = \frac{3}{4x}$$

$\{1\}$

$$18) \frac{1}{3} = \frac{1}{3n} - 1 \quad \left\{ \frac{1}{4} \right\}$$

$$19) \frac{2}{m^2} + \frac{1}{2m} = \frac{1}{m}$$

$\{4\}$

$$20) \frac{1}{2n} + \frac{1}{2n^2} = \frac{2}{n} \quad \left\{ \frac{1}{3} \right\}$$

$$21) \frac{2x-4}{3x} = \frac{1}{6} + \frac{1}{3}$$

$\{8\}$

$$22) \frac{1}{n} = \frac{4n-2}{n^2} + \frac{1}{3n} \quad \left\{ \frac{3}{5} \right\}$$

$$23) \frac{1}{4} + \frac{3}{4m} = \frac{5}{4m}$$

$\{2\}$

$$24) \frac{2}{3} - \frac{1}{3x} = \frac{1}{x}$$

$\{2\}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

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

2) $\frac{2v-5}{v} - \frac{1}{v} = 1$

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

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

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

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

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

8) $\frac{1}{2r} = \frac{1}{r} - 1$

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

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

11) $\frac{1}{v} + \frac{1}{5v^2} = \frac{5}{v^2}$

12) $\frac{1}{3n} = \frac{5}{3n} - \frac{1}{3}$

13) $\frac{1}{6} = \frac{x+2}{2x} + 1$

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

15) $\frac{x+4}{6x^2} = \frac{1}{2x} - \frac{1}{3x^2}$

16) $\frac{1}{n^2} = \frac{1}{2n^2} + \frac{5}{4n}$

17) $\frac{1}{v} = \frac{v-1}{5v} - \frac{1}{5v}$

18) $\frac{a+1}{6a} - \frac{a-3}{2a} = 1$

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

20) $\frac{1}{p^2} - \frac{5p+30}{p^2} = \frac{1}{p}$

21) $\frac{3b+12}{b} = \frac{1}{2b} + \frac{1}{2}$

22) $\frac{2}{x} - \frac{2}{x^2} = \frac{4x+16}{x^2}$

23) $\frac{5}{x} = 6 - \frac{1}{x}$

24) $\frac{1}{b} = \frac{b+4}{3b^2} - \frac{4b+20}{3b^2}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

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

 $\{12\}$

2) $\frac{2v-5}{v} - \frac{1}{v} = 1$

 $\{6\}$

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

 $\{2\}$

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

 $\{6\}$

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

 $\{4\}$

6) $\frac{n+4}{n^2} = \frac{1}{n} + \frac{6}{n} \left\{ \frac{2}{3} \right\}$

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

8) $\frac{1}{2r} = \frac{1}{r} - 1 \left\{ \frac{1}{2} \right\}$

9) $\frac{n+4}{n} - \frac{1}{2n} = \frac{1}{3n} \left\{ -\frac{19}{6} \right\}$

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

 $\{-5\}$

11) $\frac{1}{v} + \frac{1}{5v^2} = \frac{5}{v^2} \left\{ \frac{24}{5} \right\}$

12) $\frac{1}{3n} = \frac{5}{3n} - \frac{1}{3}$

 $\{4\}$

13) $\frac{1}{6} = \frac{x+2}{2x} + 1 \left\{ -\frac{3}{4} \right\}$

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

 $\{12\}$

15) $\frac{x+4}{6x^2} = \frac{1}{2x} - \frac{1}{3x^2}$

 $\{3\}$

16) $\frac{1}{n^2} = \frac{1}{2n^2} + \frac{5}{4n} \left\{ \frac{2}{5} \right\}$

17) $\frac{1}{v} = \frac{v-1}{5v} - \frac{1}{5v}$

 $\{7\}$

18) $\frac{a+1}{6a} - \frac{a-3}{2a} = 1 \left\{ \frac{5}{4} \right\}$

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

 $\{-6\}$

20) $\frac{1}{p^2} - \frac{5p+30}{p^2} = \frac{1}{p} \left\{ -\frac{29}{6} \right\}$

21) $\frac{3b+12}{b} = \frac{1}{2b} + \frac{1}{2} \left\{ -\frac{23}{5} \right\}$

22) $\frac{2}{x} - \frac{2}{x^2} = \frac{4x+16}{x^2}$

 $\{-9\}$

23) $\frac{5}{x} = 6 - \frac{1}{x}$

 $\{1\}$

24) $\frac{1}{b} = \frac{b+4}{3b^2} - \frac{4b+20}{3b^2} \left\{ -\frac{8}{3} \right\}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

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

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

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

4) $\frac{1}{n} = 2 + \frac{5}{n}$

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

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

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

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

9) $\frac{x-4}{2x} = \frac{3x-9}{4x} - \frac{2}{x}$

10) $\frac{4}{r} = 6 + \frac{1}{r}$

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

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

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

14) $\frac{1}{2a} + \frac{1}{6a} = \frac{a+3}{6a^2}$

15) $\frac{1}{4a^2} = \frac{1}{2a} - \frac{3}{2a^2}$

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

17) $\frac{n+1}{3n} - \frac{1}{3n} = \frac{n-3}{n}$

18) $\frac{4}{v^2} - \frac{5v-25}{v^2} = \frac{1}{v}$

19) $\frac{1}{4a^2} = \frac{1}{2a^2} - \frac{1}{2a}$

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

21) $\frac{1}{3} - \frac{2}{r} = \frac{1}{r}$

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

23) $\frac{1}{3} - \frac{1}{6x} = 1$

24) $\frac{a+5}{3a} + \frac{6}{a} = \frac{1}{a}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

1) $\frac{6}{x^2} = \frac{1}{6x^2} - \frac{1}{3x} \quad \left\{-\frac{35}{2}\right\}$

2) $\frac{1}{4a^2} + \frac{1}{2a} = \frac{1}{2a^2} \quad \left\{\frac{1}{2}\right\}$

3) $\frac{4r+4}{5r^2} = \frac{1}{r} - \frac{4}{r^2}$
 $\{24\}$

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

5) $\frac{4}{5x^2} - \frac{3x+6}{5x^2} = \frac{1}{x^2} \quad \left\{-\frac{7}{3}\right\}$

6) $\frac{1}{2a^2} + \frac{3}{2a} = \frac{5}{2a^2} \quad \left\{\frac{4}{3}\right\}$

7) $\frac{3x+12}{x^2} + \frac{1}{2x^2} = \frac{1}{x^2} \quad \left\{-\frac{23}{6}\right\}$

8) $\frac{x+3}{4x^2} - \frac{1}{4x^2} = \frac{3}{x^2}$
 $\{10\}$

9) $\frac{x-4}{2x} = \frac{3x-9}{4x} - \frac{2}{x}$
 $\{9\}$

10) $\frac{4}{r} = 6 + \frac{1}{r} \quad \left\{\frac{1}{2}\right\}$

11) $\frac{3}{2k} + \frac{1}{2} = \frac{3}{2} \quad \left\{\frac{3}{2}\right\}$

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

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

14) $\frac{1}{2a} + \frac{1}{6a} = \frac{a+3}{6a^2}$
 $\{1\}$

15) $\frac{1}{4a^2} = \frac{1}{2a} - \frac{3}{2a^2} \quad \left\{\frac{7}{2}\right\}$

16) $\frac{1}{2v^2} + \frac{v-2}{v^2} = \frac{2}{v^2} \quad \left\{\frac{7}{2}\right\}$

17) $\frac{n+1}{3n} - \frac{1}{3n} = \frac{n-3}{n} \quad \left\{\frac{9}{2}\right\}$

18) $\frac{4}{v^2} - \frac{5v-25}{v^2} = \frac{1}{v} \quad \left\{\frac{29}{6}\right\}$

19) $\frac{1}{4a^2} = \frac{1}{2a^2} - \frac{1}{2a} \quad \left\{\frac{1}{2}\right\}$

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

21) $\frac{1}{3} - \frac{2}{r} = \frac{1}{r}$
 $\{9\}$

22) $\frac{4}{3p^2} = \frac{1}{6p^2} + \frac{2p-1}{2p^2} \quad \left\{\frac{5}{3}\right\}$

23) $\frac{1}{3} - \frac{1}{6x} = 1 \quad \left\{-\frac{1}{4}\right\}$

24) $\frac{a+5}{3a} + \frac{6}{a} = \frac{1}{a}$
 $\{-20\}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

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

2) $\frac{x+1}{2x} = 1 + \frac{1}{2}$

3) $\frac{1}{4a^2} - \frac{1}{2a} = \frac{a-6}{4a^2}$

4) $\frac{5}{x} = \frac{x+6}{x} + \frac{1}{4x}$

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

6) $\frac{x+4}{3x^2} = \frac{x-3}{3x^2} + \frac{x-3}{x^2}$

7) $\frac{1}{3b} = \frac{1}{2b^2} - \frac{1}{6b}$

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

9) $\frac{n+5}{2n} - \frac{1}{n} = \frac{1}{4}$

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

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

12) $\frac{1}{n} - \frac{n+6}{3n^2} = \frac{5}{3n}$

13) $\frac{1}{6} + \frac{1}{6p} = 1$

14) $\frac{1}{3x} - \frac{3}{x^2} = \frac{1}{x^2}$

15) $\frac{4}{x} = \frac{1}{x} - 6$

16) $\frac{1}{x^2} = \frac{6}{x^2} + \frac{3x-18}{x^2}$

17) $\frac{2k-10}{5k^2} + \frac{k+4}{5k^2} = \frac{k-2}{k^2}$

18) $\frac{5}{n^2} + \frac{1}{n} = \frac{4n-12}{n^2}$

19) $\frac{5}{6a} = \frac{1}{6a^2} - \frac{a+2}{6a^2}$

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

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

22) $\frac{3}{4} = \frac{1}{4} + \frac{x+6}{4x}$

23) $\frac{1}{4x} = \frac{1}{4} + \frac{1}{x}$

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

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

1) $\frac{1}{v^2} = \frac{1}{3v^2} + \frac{1}{v}$ $\left\{\frac{2}{3}\right\}$

2) $\frac{x+1}{2x} = 1 + \frac{1}{2}$ $\left\{\frac{1}{2}\right\}$

3) $\frac{1}{4a^2} - \frac{1}{2a} = \frac{a-6}{4a^2}$ $\left\{\frac{7}{3}\right\}$

4) $\frac{5}{x} = \frac{x+6}{x} + \frac{1}{4x}$ $\left\{-\frac{5}{4}\right\}$

5) $\frac{m+3}{3m^2} = \frac{6}{m} - \frac{5}{m}$ $\left\{\frac{3}{2}\right\}$

6) $\frac{x+4}{3x^2} = \frac{x-3}{3x^2} + \frac{x-3}{x^2}$ $\left\{\frac{16}{3}\right\}$

7) $\frac{1}{3b} = \frac{1}{2b^2} - \frac{1}{6b}$

8) $\frac{1}{m} + \frac{m-3}{6m^2} = \frac{m-6}{6m^2}$ $\left\{-\frac{1}{2}\right\}$

 $\{1\}$

9) $\frac{n+5}{2n} - \frac{1}{n} = \frac{1}{4}$

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

 $\{-6\}$ $\{1\}$

11) $\frac{1}{2n^2} - \frac{1}{n} = \frac{n-6}{2n^2}$ $\left\{\frac{7}{3}\right\}$

12) $\frac{1}{n} - \frac{n+6}{3n^2} = \frac{5}{3n}$

 $\{-2\}$

13) $\frac{1}{6} + \frac{1}{6p} = 1$ $\left\{\frac{1}{5}\right\}$

14) $\frac{1}{3x} - \frac{3}{x^2} = \frac{1}{x^2}$

 $\{12\}$

15) $\frac{4}{x} = \frac{1}{x} - 6$ $\left\{-\frac{1}{2}\right\}$

16) $\frac{1}{x^2} = \frac{6}{x^2} + \frac{3x-18}{x^2}$ $\left\{\frac{13}{3}\right\}$

17) $\frac{2k-10}{5k^2} + \frac{k+4}{5k^2} = \frac{k-2}{k^2}$

18) $\frac{5}{n^2} + \frac{1}{n} = \frac{4n-12}{n^2}$ $\left\{\frac{17}{3}\right\}$

 $\{2\}$

19) $\frac{5}{6a} = \frac{1}{6a^2} - \frac{a+2}{6a^2}$ $\left\{-\frac{1}{6}\right\}$

20) $\frac{5}{4b^2} = \frac{1}{2b^2} + \frac{1}{2b}$ $\left\{\frac{3}{2}\right\}$

21) $\frac{1}{p} = \frac{1}{2p^2} - \frac{1}{2p}$ $\left\{\frac{1}{3}\right\}$

22) $\frac{3}{4} = \frac{1}{4} + \frac{x+6}{4x}$

 $\{6\}$

23) $\frac{1}{4x} = \frac{1}{4} + \frac{1}{x}$

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

 $\{-3\}$ $\{-14\}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

1) $\frac{1}{3k} + 1 = \frac{1}{k}$

2) $\frac{1}{m} - 1 = \frac{1}{3m}$

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

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

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

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

7) $\frac{1}{3x} - \frac{2}{3} = \frac{1}{3}$

8) $\frac{4}{x} + \frac{1}{x^2} = \frac{3}{x}$

9) $\frac{1}{k} + \frac{k-1}{5k} = \frac{1}{5k}$

10) $\frac{1}{2m} - \frac{1}{2} = \frac{m+6}{m}$

11) $\frac{3}{2b} = \frac{b-1}{2b^2} - \frac{1}{4b}$

12) $\frac{5}{4m} = \frac{m-6}{2m} + \frac{1}{4m}$

13) $\frac{1}{4m} + \frac{1}{4m^2} = \frac{1}{2m^2}$

14) $\frac{1}{v^2} = \frac{2}{v^2} + \frac{1}{2v}$

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

16) $\frac{v-4}{v^2} + \frac{6}{v^2} = \frac{1}{3v}$

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

18) $\frac{3x-4}{x^2} = \frac{x-2}{2x^2} - \frac{1}{2x}$

19) $\frac{1}{x^2} - \frac{1}{x} = \frac{4x-24}{x^2}$

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

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

22) $\frac{1}{2m} + \frac{m+4}{6m} = \frac{1}{6m}$

23) $\frac{6x+18}{x^2} = \frac{1}{x} + \frac{x+5}{x^2}$

24) $\frac{1}{n} = \frac{n+6}{5n} + \frac{2}{n}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

1) $\frac{1}{3k} + 1 = \frac{1}{k} \quad \left\{\frac{2}{3}\right\}$

2) $\frac{1}{m} - 1 = \frac{1}{3m} \quad \left\{\frac{2}{3}\right\}$

3) $\frac{n-2}{3n^2} = \frac{1}{n} - \frac{1}{n^2} \quad \left\{\frac{1}{2}\right\}$

4) $\frac{1}{2} - \frac{m+4}{4m} = 1 \quad \left\{-\frac{4}{3}\right\}$

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

6) $\frac{6}{5n} = \frac{1}{5n} + \frac{n-1}{5n^2} \quad \left\{-\frac{1}{4}\right\}$

7) $\frac{1}{3x} - \frac{2}{3} = \frac{1}{3} \quad \left\{\frac{1}{3}\right\}$

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

9) $\frac{1}{k} + \frac{k-1}{5k} = \frac{1}{5k}$
 $\{-3\}$

10) $\frac{1}{2m} - \frac{1}{2} = \frac{m+6}{m} \quad \left\{-\frac{11}{3}\right\}$

11) $\frac{3}{2b} = \frac{b-1}{2b^2} - \frac{1}{4b} \quad \left\{-\frac{2}{5}\right\}$

12) $\frac{5}{4m} = \frac{m-6}{2m} + \frac{1}{4m}$
 $\{8\}$

13) $\frac{1}{4m} + \frac{1}{4m^2} = \frac{1}{2m^2}$
 $\{1\}$

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

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

16) $\frac{v-4}{v^2} + \frac{6}{v^2} = \frac{1}{3v}$
 $\{-3\}$

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

18) $\frac{3x-4}{x^2} = \frac{x-2}{2x^2} - \frac{1}{2x}$
 $\{1\}$

19) $\frac{1}{x^2} - \frac{1}{x} = \frac{4x-24}{x^2}$
 $\{5\}$

20) $\frac{1}{n^2} = \frac{n+5}{3n^2} + \frac{2}{3n^2}$
 $\{-4\}$

21) $\frac{1}{2v} - \frac{5}{6v^2} = \frac{5}{v^2} \quad \left\{\frac{35}{3}\right\}$

22) $\frac{1}{2m} + \frac{m+4}{6m} = \frac{1}{6m}$
 $\{-6\}$

23) $\frac{6x+18}{x^2} = \frac{1}{x} + \frac{x+5}{x^2} \quad \left\{-\frac{13}{4}\right\}$

24) $\frac{1}{n} = \frac{n+6}{5n} + \frac{2}{n}$
 $\{-11\}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

1) $\frac{1}{3x} = \frac{1}{2x} + \frac{x+1}{6x}$

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

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

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

5) $\frac{2}{x^2} = \frac{1}{x^2} + \frac{5}{x}$

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

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

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

9) $\frac{6}{p^2} = \frac{2p+8}{5p^2} - \frac{1}{5p^2}$

10) $\frac{1}{2k} = \frac{2k-10}{k^2} - \frac{1}{2k^2}$

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

12) $1 - \frac{x-5}{3x} = \frac{1}{3}$

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

14) $\frac{5}{p^2} = \frac{5p-30}{3p^2} + \frac{1}{3p^2}$

15) $\frac{1}{m} - \frac{1}{4} = \frac{1}{4m}$

16) $\frac{a+6}{a} = \frac{4}{5} + \frac{1}{5a}$

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

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

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

20) $\frac{4k-20}{5k^2} + \frac{k+3}{5k^2} = \frac{2}{5k}$

21) $\frac{5n+30}{3n^2} = \frac{n-1}{3n^2} + \frac{1}{3n}$

22) $\frac{1}{x} + \frac{5}{x^2} = \frac{1}{x^2}$

23) $\frac{1}{b} = \frac{6}{b} - 1$

24) $\frac{1}{6n} = \frac{2}{n} + \frac{1}{6}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

1) $\frac{1}{3x} = \frac{1}{2x} + \frac{x+1}{6x}$

 $\{-2\}$

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

 $\{4\}$

3) $\frac{4}{5x} + \frac{5}{x^2} = \frac{1}{5x}$ $\{-\frac{25}{3}\}$

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

5) $\frac{2}{x^2} = \frac{1}{x^2} + \frac{5}{x}$ $\{\frac{1}{5}\}$

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

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

 $\{-9\}$

8) $1 + \frac{1}{2} = \frac{6x-6}{x}$ $\{\frac{4}{3}\}$

9) $\frac{6}{p^2} = \frac{2p+8}{5p^2} - \frac{1}{5p^2}$ $\{\frac{23}{2}\}$

10) $\frac{1}{2k} = \frac{2k-10}{k^2} - \frac{1}{2k^2}$

 $\{7\}$

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

12) $1 - \frac{x-5}{3x} = \frac{1}{3}$

 $\{-5\}$

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

 $\{2\}$

14) $\frac{5}{p^2} = \frac{5p-30}{3p^2} + \frac{1}{3p^2}$ $\{\frac{44}{5}\}$

15) $\frac{1}{m} - \frac{1}{4} = \frac{1}{4m}$

 $\{3\}$

16) $\frac{a+6}{a} = \frac{4}{5} + \frac{1}{5a}$

 $\{-29\}$

17) $\frac{1}{6x^2} + \frac{x-3}{x^2} = \frac{1}{2x^2}$ $\{\frac{10}{3}\}$

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

 $\{-3\}$

19) $\frac{1}{v^2} = \frac{5}{2v^2} - \frac{1}{v}$ $\{\frac{3}{2}\}$

20) $\frac{4k-20}{5k^2} + \frac{k+3}{5k^2} = \frac{2}{5k}$ $\{\frac{17}{3}\}$

21) $\frac{5n+30}{3n^2} = \frac{n-1}{3n^2} + \frac{1}{3n}$ $\{-\frac{31}{3}\}$

22) $\frac{1}{x} + \frac{5}{x^2} = \frac{1}{x^2}$

 $\{-4\}$

23) $\frac{1}{b} = \frac{6}{b} - 1$

 $\{5\}$

24) $\frac{1}{6n} = \frac{2}{n} + \frac{1}{6}$

 $\{-11\}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

1) $\frac{4b-4}{3b^2} + \frac{1}{6b^2} = \frac{1}{3b}$

2) $\frac{4}{5} - \frac{1}{n} = \frac{n-4}{5n}$

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

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

5) $\frac{5}{r} = \frac{6}{r} + \frac{3}{2}$

6) $\frac{2}{3k} - \frac{1}{3} = 1$

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

8) $\frac{3}{m} = \frac{1}{2m} + \frac{3}{2}$

9) $\frac{2}{x} = \frac{1}{6x} - \frac{x-2}{6x}$

10) $\frac{1}{a} + 1 = \frac{5}{a}$

11) $2 = \frac{n+6}{5n} + \frac{1}{5}$

12) $\frac{1}{a^2} = \frac{4}{a^2} + \frac{a+5}{2a^2}$

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

14) $\frac{4x-20}{x} + \frac{x+4}{x} = 1$

15) $1 - \frac{1}{2} = \frac{x+3}{6x}$

16) $\frac{3}{5} = \frac{6n-12}{n} - \frac{3n-9}{n}$

17) $\frac{1}{4} = 1 + \frac{1}{x}$

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

19) $\frac{5}{b} + \frac{1}{2} = 1$

20) $\frac{r+3}{r} = \frac{1}{3r} + \frac{1}{3}$

21) $\frac{6}{5n} + \frac{1}{5} = 1$

22) $\frac{5}{6x} + \frac{1}{3} = \frac{1}{6}$

23) $\frac{4v+24}{v} + \frac{3}{v} = 1$

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

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

1) $\frac{4b-4}{3b^2} + \frac{1}{6b^2} = \frac{1}{3b}$ $\left\{\frac{7}{6}\right\}$

2) $\frac{4}{5} - \frac{1}{n} = \frac{n-4}{5n}$ $\left\{\frac{1}{3}\right\}$

3) $\frac{1}{r^2} + \frac{2}{r} = \frac{6}{r}$ $\left\{\frac{1}{4}\right\}$

4) $\frac{n-5}{n^2} = \frac{2}{3n} + \frac{1}{6n^2}$ $\left\{\frac{31}{2}\right\}$

5) $\frac{5}{r} = \frac{6}{r} + \frac{3}{2}$ $\left\{-\frac{2}{3}\right\}$

6) $\frac{2}{3k} - \frac{1}{3} = 1$ $\left\{\frac{1}{2}\right\}$

7) $\frac{6}{x} + \frac{1}{x^2} = \frac{2}{x^2}$ $\left\{\frac{1}{6}\right\}$

8) $\frac{3}{m} = \frac{1}{2m} + \frac{3}{2}$ $\left\{\frac{5}{3}\right\}$

9) $\frac{2}{x} = \frac{1}{6x} - \frac{x-2}{6x}$
 $\{-9\}$

10) $\frac{1}{a} + 1 = \frac{5}{a}$
 $\{4\}$

11) $2 = \frac{n+6}{5n} + \frac{1}{5}$ $\left\{\frac{3}{4}\right\}$

12) $\frac{1}{a^2} = \frac{4}{a^2} + \frac{a+5}{2a^2}$
 $\{-11\}$

13) $\frac{4}{n} = \frac{1}{n^2} + \frac{1}{n}$ $\left\{\frac{1}{3}\right\}$

14) $\frac{4x-20}{x} + \frac{x+4}{x} = 1$
 $\{4\}$

15) $1 - \frac{1}{2} = \frac{x+3}{6x}$ $\left\{\frac{3}{2}\right\}$

16) $\frac{3}{5} = \frac{6n-12}{n} - \frac{3n-9}{n}$ $\left\{\frac{5}{4}\right\}$

17) $\frac{1}{4} = 1 + \frac{1}{x}$ $\left\{-\frac{4}{3}\right\}$

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

19) $\frac{5}{b} + \frac{1}{2} = 1$
 $\{10\}$

20) $\frac{r+3}{r} = \frac{1}{3r} + \frac{1}{3}$
 $\{-4\}$

21) $\frac{6}{5n} + \frac{1}{5} = 1$ $\left\{\frac{3}{2}\right\}$

22) $\frac{5}{6x} + \frac{1}{3} = \frac{1}{6}$
 $\{-5\}$

23) $\frac{4v+24}{v} + \frac{3}{v} = 1$
 $\{-9\}$

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

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

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

2) $\frac{1}{m} = \frac{5}{m} + 4$

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

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

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

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

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

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

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

10) $\frac{6n-5}{n^2} = \frac{1}{n} + \frac{1}{n^2}$

11) $6 = \frac{3n-12}{n} - \frac{6}{n}$

12) $\frac{1}{3r} + \frac{1}{3r^2} = \frac{4}{r^2}$

13) $\frac{1}{b} = \frac{1}{4b^2} - \frac{1}{4b}$

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

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

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

17) $\frac{1}{2r} = \frac{1}{4r} + \frac{r+3}{4r}$

18) $1 = \frac{1}{5k} + \frac{k+1}{5k}$

19) $\frac{5}{v^2} = \frac{5}{v} + \frac{1}{v^2}$

20) $\frac{n-5}{n^2} - \frac{3}{4n^2} = \frac{1}{4n^2}$

21) $\frac{4}{k} - \frac{4k-24}{k^2} = \frac{2k-10}{k^2}$

22) $2 = \frac{1}{2} + \frac{b+2}{b}$

23) $\frac{1}{v} - \frac{1}{2} = \frac{1}{2v}$

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

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

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

 $\{-5\}$

2) $\frac{1}{m} = \frac{5}{m} + 4$

 $\{-1\}$

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

 $\{-1\}$

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

 $\{2\}$

5) $\frac{n-6}{n^2} = \frac{1}{n^2} - \frac{1}{4n}$ $\{\frac{28}{5}\}$

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

 $\{-3\}$

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

 $\{-11\}$

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

 $\{2\}$

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

10) $\frac{6n-5}{n^2} = \frac{1}{n} + \frac{1}{n^2}$ $\{\frac{6}{5}\}$

11) $6 = \frac{3n-12}{n} - \frac{6}{n}$

 $\{-6\}$

12) $\frac{1}{3r} + \frac{1}{3r^2} = \frac{4}{r^2}$

 $\{11\}$

13) $\frac{1}{b} = \frac{1}{4b^2} - \frac{1}{4b}$ $\{\frac{1}{5}\}$

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

 $\{-2\}$

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

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

17) $\frac{1}{2r} = \frac{1}{4r} + \frac{r+3}{4r}$

 $\{-2\}$

18) $1 = \frac{1}{5k} + \frac{k+1}{5k}$ $\{\frac{1}{2}\}$

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

20) $\frac{n-5}{n^2} - \frac{3}{4n^2} = \frac{1}{4n^2}$

 $\{6\}$

21) $\frac{4}{k} - \frac{4k-24}{k^2} = \frac{2k-10}{k^2}$

 $\{17\}$

22) $2 = \frac{1}{2} + \frac{b+2}{b}$

 $\{4\}$

23) $\frac{1}{v} - \frac{1}{2} = \frac{1}{2v}$

 $\{1\}$

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

 $\{2\}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

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

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

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

4) $\frac{2}{3} = \frac{1}{3} + \frac{4}{3k}$

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

6) $\frac{1}{k} + 1 = \frac{6k-18}{k}$

7) $\frac{1}{6m} = \frac{m-6}{2m} - \frac{1}{3m}$

8) $\frac{1}{2r^2} = \frac{1}{3r} + \frac{5}{3r^2}$

9) $\frac{3}{v} = 1 + \frac{1}{3v}$

10) $\frac{5}{x} = \frac{2}{x} + 1$

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

12) $\frac{6}{v} = 6 - \frac{1}{v}$

13) $\frac{x+5}{4x} + \frac{x-2}{4x} = \frac{3}{2}$

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

15) $1 + \frac{1}{b} = \frac{1}{5}$

16) $\frac{1}{4v^2} = \frac{1}{v} - \frac{1}{2v^2}$

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

18) $\frac{1}{k^2} + \frac{1}{k} = \frac{5}{k^2}$

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

20) $\frac{x-6}{x} + \frac{4x+12}{x} = 1$

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

22) $\frac{x+4}{x} = 1 - \frac{3x+6}{x}$

23) $\frac{2x+2}{x} = \frac{4x+16}{x} - \frac{6}{5}$

24) $\frac{1}{6a} - \frac{1}{6a^2} = \frac{4}{3a^2}$

Assignment

Date _____ Period _____

Solve each equation. Remember to check for extraneous solutions.

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

 $\{5\}$

2) $\frac{1}{2x^2} + \frac{x-3}{x^2} = \frac{1}{4x^2} \left\{ \frac{11}{4} \right\}$

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

 $\{-4\}$

4) $\frac{2}{3} = \frac{1}{3} + \frac{4}{3k}$

 $\{4\}$

5) $\frac{1}{3n^2} = \frac{4}{3n} + \frac{2}{n^2} \left\{ -\frac{5}{4} \right\}$

6) $\frac{1}{k} + 1 = \frac{6k-18}{k} \left\{ \frac{19}{5} \right\}$

7) $\frac{1}{6m} = \frac{m-6}{2m} - \frac{1}{3m}$

 $\{7\}$

8) $\frac{1}{2r^2} = \frac{1}{3r} + \frac{5}{3r^2} \left\{ -\frac{7}{2} \right\}$

9) $\frac{3}{v} = 1 + \frac{1}{3v} \left\{ \frac{8}{3} \right\}$

10) $\frac{5}{x} = \frac{2}{x} + 1$

 $\{3\}$

11) $\frac{v+3}{3v^2} - \frac{1}{2v^2} = \frac{3}{v^2} \left\{ \frac{15}{2} \right\}$

12) $\frac{6}{v} = 6 - \frac{1}{v} \left\{ \frac{7}{6} \right\}$

13) $\frac{x+5}{4x} + \frac{x-2}{4x} = \frac{3}{2} \left\{ \frac{3}{4} \right\}$

14) $\frac{n-6}{n^2} = \frac{2}{3n} + \frac{n-1}{n^2} \left\{ -\frac{15}{2} \right\}$

15) $1 + \frac{1}{b} = \frac{1}{5} \left\{ -\frac{5}{4} \right\}$

16) $\frac{1}{4v^2} = \frac{1}{v} - \frac{1}{2v^2} \left\{ \frac{3}{4} \right\}$

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

 $\{-2\}$

18) $\frac{1}{k^2} + \frac{1}{k} = \frac{5}{k^2}$

 $\{4\}$

19) $\frac{1}{n} = \frac{1}{n^2} - \frac{3n+3}{n^2} \left\{ -\frac{1}{2} \right\}$

20) $\frac{x-6}{x} + \frac{4x+12}{x} = 1 \left\{ -\frac{3}{2} \right\}$

21) $\frac{1}{3} = \frac{1}{b} + \frac{b+6}{b} \left\{ -\frac{21}{2} \right\}$

22) $\frac{x+4}{x} = 1 - \frac{3x+6}{x} \left\{ -\frac{10}{3} \right\}$

23) $\frac{2x+2}{x} = \frac{4x+16}{x} - \frac{6}{5} \left\{ -\frac{35}{2} \right\}$

24) $\frac{1}{6a} - \frac{1}{6a^2} = \frac{4}{3a^2}$

 $\{9\}$

Assignment

Solve each equation. Remember to check for extraneous solutions.

1) $1 = \frac{4k + 24}{k} + \frac{6k + 6}{k}$

2) $\frac{3}{2} - \frac{1}{2b} = \frac{1}{b}$

3) $\frac{1}{2} - \frac{1}{4k} = \frac{k + 1}{4k}$

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

5) $\frac{1}{6} + \frac{x + 1}{2x} = \frac{1}{2}$

6) $1 + \frac{5}{p} = \frac{1}{p}$

7) $\frac{1}{6n^2} - \frac{1}{6n} = \frac{5}{6n^2}$

8) $\frac{1}{3v^2} = \frac{1}{v^2} - \frac{2v - 10}{3v^2}$

9) $\frac{6}{b} = \frac{1}{b} - 6$

10) $\frac{n + 2}{n} = \frac{1}{n} - 1$

11) $\frac{1}{n} = \frac{1}{2n} - \frac{1}{2}$

12) $\frac{a - 3}{5a^2} + \frac{2}{5a^2} = \frac{1}{a^2}$

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

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

15) $\frac{a + 3}{a^2} = \frac{1}{a} - \frac{5a + 30}{a^2}$

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

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

18) $\frac{1}{3x} = \frac{4}{3x} + \frac{1}{3}$

19) $\frac{1}{6x^2} = \frac{1}{2x^2} + \frac{x + 5}{6x^2}$

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

21) $\frac{1}{6} = \frac{1}{2} - \frac{5}{6r}$

22) $\frac{6}{p} = \frac{1}{2} + \frac{1}{p}$

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

24) $\frac{3v - 12}{2v^2} - \frac{v + 1}{4v^2} = \frac{1}{4v}$

Assignment

Solve each equation. Remember to check for extraneous solutions.

$$1) 1 = \frac{4k+24}{k} + \frac{6k+6}{k} \quad \left\{-\frac{10}{3}\right\}$$

$$2) \frac{3}{2} - \frac{1}{2b} = \frac{1}{b}$$

$$\{1\}$$

$$3) \frac{1}{2} - \frac{1}{4k} = \frac{k+1}{4k}$$

$$\{2\}$$

$$4) \frac{x-5}{2x^2} + \frac{1}{4x^2} = \frac{4}{x^2} \quad \left\{\frac{25}{2}\right\}$$

$$5) \frac{1}{6} + \frac{x+1}{2x} = \frac{1}{2}$$

$$\{-3\}$$

$$6) 1 + \frac{5}{p} = \frac{1}{p}$$

$$\{-4\}$$

$$7) \frac{1}{6n^2} - \frac{1}{6n} = \frac{5}{6n^2}$$

$$\{-4\}$$

$$8) \frac{1}{3v^2} = \frac{1}{v^2} - \frac{2v-10}{3v^2}$$

$$\{6\}$$

$$9) \frac{6}{b} = \frac{1}{b} - 6 \quad \left\{-\frac{5}{6}\right\}$$

$$10) \frac{n+2}{n} = \frac{1}{n} - 1 \quad \left\{-\frac{1}{2}\right\}$$

$$11) \frac{1}{n} = \frac{1}{2n} - \frac{1}{2}$$

$$\{-1\}$$

$$12) \frac{a-3}{5a^2} + \frac{2}{5a^2} = \frac{1}{a^2}$$

$$\{6\}$$

$$13) \frac{r-6}{r^2} = \frac{1}{r^2} + \frac{5}{r} \quad \left\{-\frac{7}{4}\right\}$$

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

$$\{9\}$$

$$15) \frac{a+3}{a^2} = \frac{1}{a} - \frac{5a+30}{a^2} \quad \left\{-\frac{33}{5}\right\}$$

$$16) \frac{3}{k} = \frac{3}{k^2} + \frac{1}{2k} \quad \left\{\frac{6}{5}\right\}$$

$$17) \frac{1}{n^2} + \frac{2}{5n} = \frac{5}{n^2}$$

$$\{10\}$$

$$18) \frac{1}{3x} = \frac{4}{3x} + \frac{1}{3}$$

$$\{-3\}$$

$$19) \frac{1}{6x^2} = \frac{1}{2x^2} + \frac{x+5}{6x^2}$$

$$\{-7\}$$

$$20) \frac{1}{2x} = \frac{1}{4x} + \frac{1}{4}$$

$$\{1\}$$

$$21) \frac{1}{6} = \frac{1}{2} - \frac{5}{6r} \quad \left\{\frac{5}{2}\right\}$$

$$22) \frac{6}{p} = \frac{1}{2} + \frac{1}{p}$$

$$\{10\}$$

$$23) \frac{1}{2n} + \frac{2}{n^2} = \frac{1}{n}$$

$$\{4\}$$

$$24) \frac{3v-12}{2v^2} - \frac{v+1}{4v^2} = \frac{1}{4v} \quad \left\{\frac{25}{4}\right\}$$