

## Homework

Complete #'s 10, 14, and 4 other problems of your choice.

$$1. \frac{3}{2}x - \frac{4}{6}y = \frac{1}{3}$$

$$2. -3x + 5y - 10 = 14$$

$$3. \frac{2}{3}y = 5 - \frac{3}{4}x$$

$$4. -\frac{1}{6}x + \frac{2}{4}y = 7$$

$$5. \frac{6}{13}y = \frac{7}{26}x - 2$$

$$6. -\frac{7}{8}x - 3y = 6$$

$$7. -\frac{4}{5}x + \frac{1}{2}y = 27$$

$$8. 3y = \frac{9}{4}x + 3$$

$$9. \frac{18}{13}x + \frac{6}{24}y = 40$$

$$10. -\frac{2}{3}x - \frac{5}{2}y = -\frac{4}{7} + \frac{8}{9}x$$

$$11. -\frac{31}{2}y = -\frac{27}{2}x - 7\frac{1}{2}$$

$$12. y = -\frac{2}{8}x$$

$$13. -4x + \frac{1}{2} = 4y$$

$$14. y = \frac{14}{3}x + \frac{22}{7} + \frac{28}{3}$$

$$15. -7y = 10 - \frac{2}{3}x$$

$$16. \frac{3}{4}x = -\frac{7}{8}y + 20$$

$$17. \frac{3}{4}y = -\frac{13}{16}x + \frac{17}{22}$$

$$18. 6y + 7y + 15y - \frac{2}{7}y = 4x + \frac{18}{6}x + 3x - x + \frac{6}{3} + \frac{4}{3} + \frac{1}{3}$$

$$1. 6 \left[ \frac{3}{2}x - \frac{4}{6}y = \frac{1}{3} \right]$$

$$9x - 4y = 2$$

$$2. -3x + 5y - 10 = 14$$

+10 +10

$$-1 \left[ -3x + 5y = 24 \right]$$

$$3x - 5y = -24$$

$$3. 12 \left[ \frac{2}{3}y = 5 - \frac{3}{4}x \right]$$

$$8y = 60 - 9x$$

+4x +9x

$$9x + 8y = 60$$

$$4. -\frac{1}{6}x + \frac{2}{4}y = 7$$

$$-6 \left[ -\frac{1}{6}x + \frac{1}{2}y = 7 \right]$$

$$x - 3y = -42$$

$$5. \frac{6}{13}y = \frac{7}{26}x - 2$$

$$-\frac{7}{26}x \quad -\frac{7}{26}x$$

$$-26 \left[ -\frac{7}{26}x + \frac{6}{13}y = -2 \right]$$

$$7x - 12y = 52$$

$$6. 8 \left[ -\frac{7}{8}x - 3y = 6 \right]$$

$$7x + 24y = -48$$

$$7. -10 \left[ -\frac{4}{5}x + \frac{1}{2}y = 27 \right]$$

$$8x - 5y = -270$$

$$8. -4 \left[ 3y = \frac{9}{4}x + 3 \right]$$

$$-12y = -9x - 12$$

$$\begin{array}{r} +9x \quad +9x \\ \hline 9x - 12y = -12 \\ \frac{9x}{3} \quad \frac{-12y}{3} \quad \frac{-12}{3} \\ 3x - 4y = -4 \end{array}$$

$$9. 312 \left[ \frac{18}{13}x + \frac{6}{24}y = 40 \right]$$

$$\frac{432x}{2} + \frac{78y}{2} = \frac{12,480}{2}$$

$$216x + 39y = 6,240$$

$$10. -126 \left[ -\frac{2}{3}x - \frac{5}{2}y = -\frac{4}{7} + \frac{8}{9}x \right]$$

$$84x + 315y = 72 - 112x$$

$$\begin{array}{r} +112x \quad +112x \\ \hline 196x + 315y = 72 \end{array}$$

$$11. 2 \left[ -\frac{31}{2}y = -\frac{27}{2}x - 7\frac{1}{2} \right]$$

$$-31y = -27x - 15$$

$$\begin{array}{r} +27x \quad +27x \\ \hline 27x - 31y = -15 \end{array}$$

$$12. 4 \left[ y = -\frac{2}{8}x \right]$$

$$4y = -x$$

$$\begin{array}{r} +x \quad +x \\ \hline x + 4y = 0 \end{array}$$

$$13. -2 \left[ -4x + \frac{1}{2} = 4y \right]$$

$$8x - 1 = -8y$$

$$\begin{array}{r} 8x - 1 = -8y \\ +1 \quad +1 \\ \hline 8x = -8y + 1 \\ +8y \quad +8y \\ \hline \end{array}$$

$$8x + 8y = 1$$

$$14. -21 \left[ y = \frac{14}{3}x + \frac{22}{7} + \frac{28}{3} \right]$$

$$-21y = -98x - 66 - 196$$

$$\begin{array}{r} -21y = -98x - 66 - 196 \\ +98x \quad +98x \\ \hline 98x - 21y = -262 \end{array}$$

$$15. 3 \left[ -7y = 10 - \frac{2}{3}x \right]$$

$$-21y = 30 - 2x$$

$$\begin{array}{r} -21y = 30 - 2x \\ +2x \quad +2x \\ \hline \end{array}$$

$$2x - 21y = 30$$

$$16. 8 \left[ \frac{3}{4}x = -\frac{7}{8}y + 20 \right]$$

$$6x = -7y + 160$$

$$\begin{array}{r} 6x = -7y + 160 \\ +7y \quad +7y \\ \hline \end{array}$$

$$6x + 7y = 160$$

$$17. 352 \left[ \frac{3}{4}y = -\frac{13}{16}x + \frac{17}{22} \right]$$

$$264y = -286x + 272$$

$$\begin{array}{r} 264y = -286x + 272 \\ +286x \quad +286x \\ \hline \end{array}$$

$$\begin{array}{r} 286x + 264y = 272 \\ \hline \end{array}$$

$$143x + 132y = 136$$

18.

$$6y + 7y + 15y - \frac{2}{7}y = 4x + \frac{18}{6}x + 3x - x + \frac{6}{3} + \frac{4}{3} + \frac{1}{3}$$

$$-21 \left[ 28y - \frac{2}{7}y = 9x + \frac{11}{3} \right]$$

$$-588y + 6y = -189x - 77$$

$$-582y = -189x - 77$$

$$\begin{array}{r} +189x \qquad +189x \\ \hline \end{array}$$

$$189x - 582y = -77$$