

B-Block Equations

Complete #'s 6, 14, and 4 other problems of your choice.

1 $-\frac{2}{5}y = -3 + \frac{1}{4}x + 5$

2 $2y = \frac{2}{5}x - 9$

3 $\frac{3}{5}x + 20 - 7y = 54$

4 $-\frac{3}{8}x = 5y - 2$

5 $-\frac{2}{3}y = \frac{1}{3}x + 6$

6 $-\frac{1}{15}y = -\frac{2}{3}x + 22$

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

8 $y = -\frac{5}{12}x - \frac{2}{3}$

9 $\frac{3}{4}y = \frac{6}{4}x + 3$

10 $-\frac{5}{6}x + 7 = -\frac{2}{3}y$

11 $\frac{2}{3}x + 7 = \frac{5}{8}y$

12 $-7y = 15x - \frac{7}{4}$

13 $-4y = 16x - \frac{15}{16}$

14 $-\frac{3}{4}y = \frac{2}{3}x + \frac{4}{6}$

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

$$\begin{aligned} 20 \left[-\frac{2}{5}y = -3 + \frac{1}{4}x + 5 \right] \\ -8y = -60 + 5x + 100 \\ -8y = 40 + 5x \\ \underline{-5x} \quad \quad \quad -5x \\ -1 \left[-5x - 8y = 40 \right] \end{aligned}$$

$$5x + 8y = -40$$

$$2 \quad 2y = \frac{2}{5}x - 9$$

$$\begin{aligned} 5 \left[2y = \frac{2}{5}x - 9 \right] \\ 10y = 2x - 45 \\ \underline{-2x} \quad \quad \quad -2x \\ -1 \left[-2x + 10y = -45 \right] \end{aligned}$$

$$2x - 10y = 45$$

$$3 \quad \frac{3}{5}x + 20 - 7y = 54$$

$$\begin{aligned} 5 \left[\frac{3}{5}x + 20 - 7y = 54 \right] \\ 3x + 100 - 35y = 270 \\ \underline{-100} \quad \quad \quad \underline{-100} \\ 3x - 35y = 170 \end{aligned}$$

$$3x - 35y = 170$$

$$4 \quad -\frac{3}{8}x = 5y - 2$$

$$\begin{aligned} 8 \left[-\frac{3}{8}x = 5y - 2 \right] \\ 3x = 40y - 16 \\ \underline{-40y} \quad \quad \quad -40y \\ 3x - 40y = -16 \end{aligned}$$

$$3x - 40y = -16$$

$$5 \quad -\frac{2}{3}y = \frac{1}{3}x + 6$$

$$\begin{aligned} -3 \left[-\frac{2}{3}y = \frac{1}{3}x + 6 \right] \\ 2y = -x - 18 \\ \underline{+x} \quad \quad \quad \underline{+x} \\ x + 2y = -18 \end{aligned}$$

$$x + 2y = -18$$

$$6 \quad -\frac{1}{15}y = -\frac{2}{3}x + 22$$

$$\begin{aligned} 15 \left[-\frac{1}{15}y = -\frac{2}{3}x + 22 \right] \\ -y = -10x + 330 \\ \underline{+10x} \quad \quad \quad \underline{+10x} \\ 10x - y = 330 \end{aligned}$$

$$10x - y = 330$$

$$7 \quad \frac{1}{2}x - \frac{1}{4}y = 4$$

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

$$2x - y = -16$$

$$8 \quad y = -\frac{5}{12}x - \frac{2}{3}$$

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

$$12y = -5x - 8$$

$$+5x \quad +5x$$

$$5x + 12y = -8$$

$$9 \quad \frac{3}{4}y = \frac{6}{4}x + 3$$

$$4 \left[\frac{3}{4}y = \frac{6}{4}x + 3 \right]$$

$$3y = 6x + 12$$

$$-6x \quad -6x$$

$$-\frac{1}{3} \left[-6x + 3y = 12 \right]$$

$$2x - y = -4$$

$$10 \quad -\frac{5}{6}x + 7 = -\frac{2}{3}y$$

$$-6 \left[-\frac{5}{6}x + 7 = -\frac{2}{3}y \right]$$

$$5x - 42 = 4y$$

$$-4y \quad -4y$$

$$5x - 4y - 42 = 0$$

$$+42 \quad +42$$

$$5x - 4y = 42$$

$$11 \quad \frac{2}{3}x + 7 = \frac{5}{8}y$$

$$24 \left[\frac{2}{3}x + 7 = \frac{5}{8}y \right]$$

$$16x + 168 = 15y$$

$$-168 \quad -168$$

$$16x = 15y - 168$$

$$-15y \quad -15y$$

$$16x - 15y = -168$$

$$12 \quad -7y = 15x - \frac{7}{4}$$

$$-4 \left[-7y = 15x - \frac{7}{4} \right]$$

$$28y = -60x + 7$$

$$+60x \quad +60x$$

$$60x + 28y = 7$$

13

$$-4y = 16x - \frac{15}{16}$$

$$-16 \left[-4y = 16x - \frac{15}{16} \right]$$

$$64y = -256x + 15$$

$$+256x \quad +256x$$

$$256x + 64y = 15$$

$$15. \quad 15y - 6x = \frac{-7}{3}$$

$$-3 \left[15y - 6x = \frac{-7}{3} \right]$$

$$18x - 45y = -7$$

14

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

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

$$9y = -8x - 8$$

$$+8x \quad +8x$$

$$8x + 9y = -8$$