

Homework Answers - p. 384

5–16. Coordinates given in alphabetical order.

5. $(9, 28)$

6. $(-\frac{1}{2}, -4\frac{1}{2})$

7. $(6\frac{1}{3}, -\frac{1}{3})$

8. $(2, 4\frac{1}{2})$

9. $(4, 20)$

10. $(\frac{3}{4}, 9\frac{3}{8})$

11. $(2, 0)$

12. $(7\frac{7}{17}, 11\frac{8}{17})$

13. $(6, -2)$

14. $(3, -2)$

15. $(8, -7)$

16. $(-3, 9.4)$

25. D

34. $(2, 4)$

35. $(-\frac{1}{2}, -\frac{1}{2})$

36. $(2, -4)$

37. $(2, \frac{1}{2})$

38. $(-\frac{1}{2}, 0)$

39. $(4, -2)$

Homework Questions

$$\begin{aligned} \textcircled{5} \quad y &= 4x - 8 \\ y &= 2x + 10 \\ 2x + 10 &= 4x - 8 \\ -2x & \quad -2x \\ \hline 10 &= 2x - 8 \\ +8 & \quad +8 \\ \hline 18 &= 2x \\ \frac{18}{2} &= \frac{2x}{2} \end{aligned}$$

$$\begin{aligned} y &= 4(9) - 8 & 9 &= x \\ 36 - 8 &= 28 & (9, 28) \end{aligned}$$

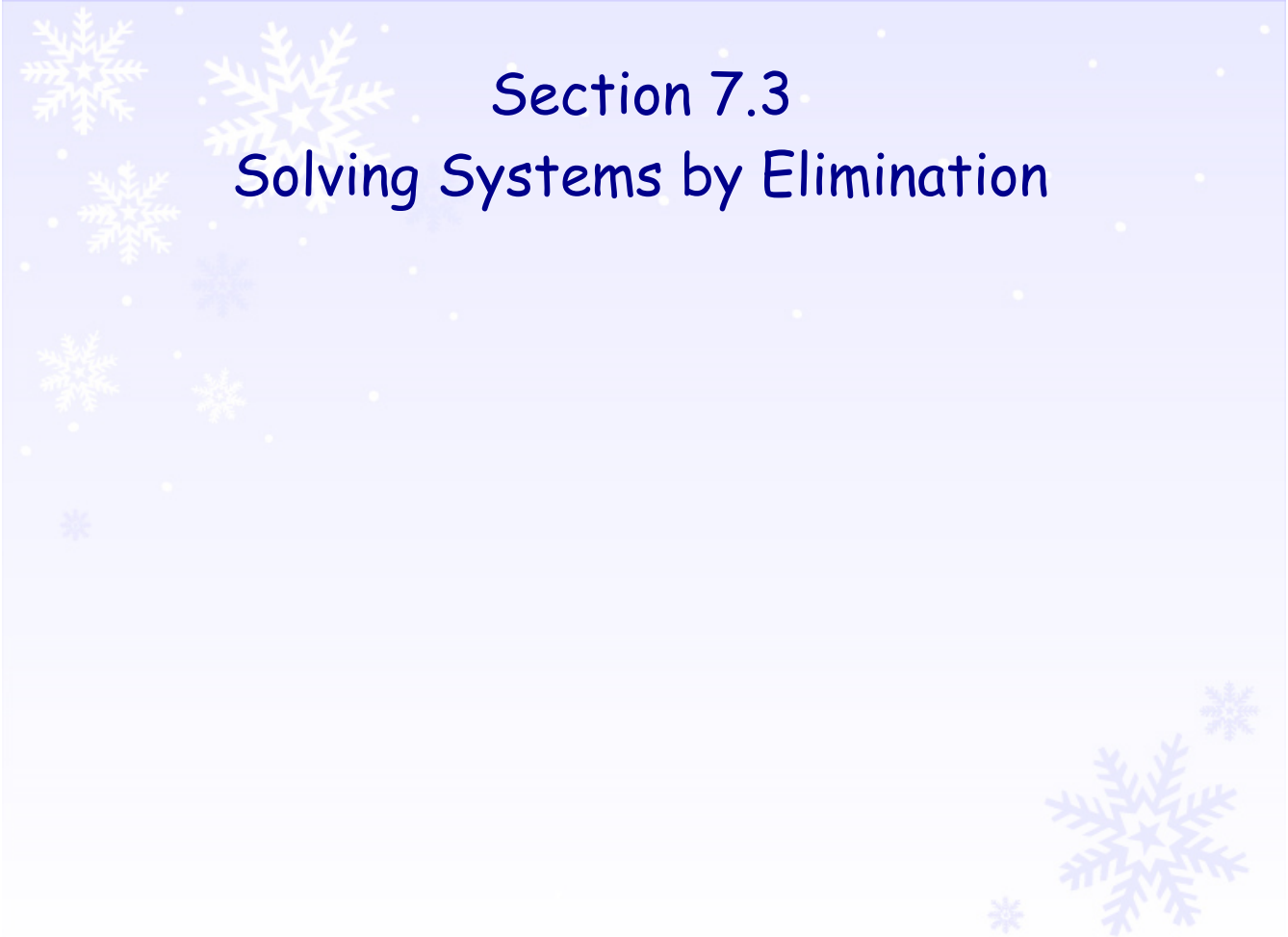
$$\begin{aligned} \textcircled{7} \quad m &= 5p + 8 \\ m &= -10p + 3 \\ 5p + 8 &= -10p + 3 \\ +10p & \quad +10p \\ \hline 15p + 8 &= 3 \\ -8 & \quad -8 \\ \hline 15p &= -5 \\ p &= -\frac{5}{15} = -\frac{1}{3} = p \end{aligned}$$

$$\begin{aligned} m &= 5\left(-\frac{1}{3}\right) + 8 \\ &= -\frac{5}{3} + \frac{24}{3} = \frac{19}{3} = m \end{aligned}$$

$$\begin{aligned} \textcircled{12} \quad C &= 3d - 27 \\ 4d + 10C &= 120 \\ 4d + 10(3d - 27) &= 120 \\ 4d + 30d - 270 &= 120 \\ 34d - 270 &= 120 \\ +270 & \quad +270 \\ \hline 34d &= 390 \\ \frac{34d}{34} &= \frac{390}{34} \end{aligned}$$

$$d = \frac{195}{17}$$

$$\begin{aligned} y &= 2x \\ 6x - y &= 8 \\ 6x - 2x &= 8 \\ 4x &= 8 \end{aligned}$$



Section 7.3
Solving Systems by Elimination

For some systems, you can solve the system using addition. . .

Solve by Elimination

$$\begin{array}{r}
 6x - 3y = 3 \\
 + \quad -6x + 5y = 3 \\
 \hline
 \end{array}$$

Notice the sum of the coefficients of x is zero!

$$\begin{array}{r}
 2y = 6 \\
 \hline
 2 \quad 2
 \end{array}$$

$$\boxed{y = 3}$$

$$6x - 3(3) = 3$$

$$6x - 9 = 3$$

$$\begin{array}{r}
 +9 \quad +9 \\
 \hline
 \end{array}$$

$$6x = 12$$

$$x = 2$$

$$\boxed{(2, 3)}$$

... this would be using the "elimination method."

Solve by Elimination

$$\begin{array}{r} -1(3x + 4y = 8) \\ 2x + 4y = 3 \\ + \quad -3x - 4y = -8 \\ \hline -x = -5 \\ \frac{-x}{-1} = \frac{-5}{-1} \\ \boxed{x = 5} \end{array}$$

$$\left(5, -\frac{7}{4}\right)$$

$$\begin{array}{r} 2x + 4y = 3 \\ 2(5) + 4y = 3 \\ 10 + 4y = 3 \\ -10 \quad \quad -10 \\ \hline 4y = -7 \\ y = -\frac{7}{4} \end{array}$$

Solve by Elimination

$$18x - 6y = 33$$

$$2(-9x + 3y = 16)$$

$$\begin{array}{r} -18x + 6y = 32 \\ + 18x - 6y = 33 \\ \hline \end{array}$$

$$0 = 65$$

N.S.

Your class sells a total of 64 tickets to a play. A student ticket costs \$1, and an adult ticket costs \$2.50. Your class collects \$109 in total tickets sales. How many adult tickets did you sell? How many student tickets did you sell?

a. Write your system of equations

$$\begin{aligned} -1(64 &= a + s) \\ 109 &= 2.5a + 1s \end{aligned}$$

b. Solve your system using elimination

$$\begin{aligned} + \quad -64 &= -a - s \\ 109 &= 2.5a + s \end{aligned}$$

$$45 = 1.5a$$

$$\begin{array}{r} 1.5 \quad 1.5 \\ \hline \end{array}$$

$$30 = a$$

$$64 = a + s$$

$$64 = 30 + s$$

$$\begin{array}{r} -30 \quad -30 \\ \hline 34 = s \end{array}$$

30 adult tickets

34 student tickets

Thursday...

**YOU MUST HAVE A GRAPHING
CALCULATOR!!!**

You do not get to borrow one from me anymore. The library is running very low so checking them out may not be possible.



Homework:

p. 390 (1 - 8, 32)