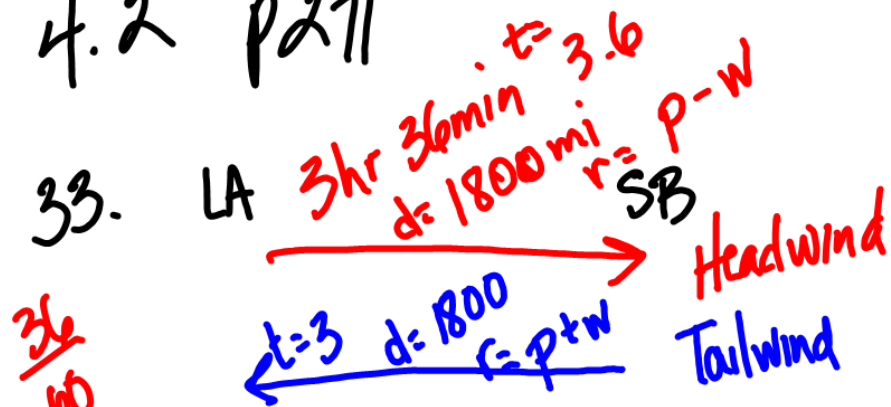


4.2 p271



$$\frac{3.6}{60}$$

$$d=rt$$

$$\frac{3.6(p-w)}{3.6} = \frac{1800}{3.6}$$

$$\frac{3(p+w)}{3} = \frac{1800}{3}$$

$$p-w = 500$$

$$+ \quad p+w = 600$$


---


$$\frac{2p}{2} = \frac{1100}{2}$$

$$p = 550 \text{ mph}$$

$$550 + w = 600$$

$$w = 50 \text{ mph}$$

25. p271

$$3 \cdot \frac{12 \cdot (x+3)}{4} + \frac{4 \cdot (y-1)}{3} = 1 \cdot 12$$

LCD  
12

$$3x + 9 + 4y - 4 = 12$$

$$3x + 4y + 5 = 12$$

$$3x + 4y = 7$$

$$4 \cdot x - y = 3$$

$$\begin{array}{r} 3x + 4y = 7 \\ + \quad 4x - 4y = 12 \\ \hline 7x \quad = 19 \\ \frac{7x}{7} \quad = \frac{19}{7} \end{array}$$

$$x = \frac{19}{7}$$

$$x - y = 3$$

$$\frac{19}{7} - y = \frac{21}{7}$$

$$-y = \frac{2}{7}$$

$$y = -\frac{2}{7}$$

$$\left(\frac{19}{7}, -\frac{2}{7}\right)$$

4.3. p284 3

①  $4x + y - 3z = 11$

②  $2x - 3y + 2z = 9$

③  $x + y + z = -3$

①  $4x + y - 3z = 11$

③  $-x + y + z = -3$

④  $3x - 4z = 14$

②  $2x - 3y + 2z = 9$

③  $+3x + 3y + 3z = -9$

⑤  $5x + 5z = 0$

-5 ④  $-15x + 20z = -70$

+3 ⑤  $+15x + 15z = 0$

$35z = -70$

$z = -2$

⑥  $5x + 5z = 0$

$5x + 5(-2) = 0$

$5x - 10 = 0$

$5x = 10$

$x = 2$

③  $x + y + z = -3$

$2 + y + (-2) = -3$

$y = -3$

 $(2, -3, -2)$

$$13. \begin{array}{l} \textcircled{1} \quad x \quad + 4z = 13 \\ \textcircled{2} \quad 4x - 2y + z = 7 \\ \textcircled{3} \quad 2x - 2y - 7z = -19 \end{array}$$

$$-1 \textcircled{2} \quad -4x + 2y - z = -7 \\ \textcircled{3} + 2x - 2y - 7z = -19 \\ \hline \textcircled{4} \quad -2x \quad -8z = -26$$

$$2 \cdot \textcircled{1} \quad x \quad + 4z = 13 \\ \quad \quad 2x \quad + 8z = 26 \\ + \quad -2x \quad - 8z = -26 \\ \hline \quad \quad \quad 0 = 0$$

$$\begin{array}{l} z = a \\ \text{Substitute} \\ \text{Solve for } x \end{array} \quad \begin{array}{l} x + 4a = 13 \\ x = 13 - 4a \\ x = -4a + 13 \end{array}$$

$$\begin{array}{l} \textcircled{2} \\ \text{Substitute} \\ \text{Solve for } y \end{array} \quad \begin{array}{l} 4x - 2y + z = 7 \\ 4(-4a + 13) - 2y + a = 7 \\ -16a + 52 - 2y + a = 7 \\ -15a + 52 - 2y = 7 \\ \begin{array}{r} +15a \quad -52 \quad +15a \quad -52 \end{array} \\ -2y = 15a - 45 \\ \begin{array}{r} \div -2 \quad \div -2 \quad \div -2 \end{array} \\ y = \frac{-15}{2}a + \frac{45}{2} \end{array}$$

$$\left( -4a + 13, \frac{-15}{2}a + \frac{45}{2}, a \right)$$