

Review 2.7

$$(8-x) - (1+x) - (2+x) - (4-x) \quad (9)$$

① $50-x$

③ $x + 2x - 5$

$$x + 3x + 3 = 1 - x$$

⑤ $9(3x+4) = 31$

$$9(3 \cdot \frac{-5}{27} + 4) \stackrel{?}{=} 31$$

$$27x + 36 = 31$$

$$9(-\frac{5}{9} + \frac{36}{9}) \stackrel{?}{=} 31$$

$$\underline{-36 \quad -36}$$

$$9(\frac{31}{9}) \stackrel{?}{=} 31$$

$$\underline{27x = -5}$$

$$31 = 31 \checkmark$$

$$\frac{27}{27} \quad \frac{-5}{27}$$

$$x = 2$$

$$x = \underline{-5}$$

$$3(5 \cdot 2 - 4) - 3(2 \cdot 2 + 6) - (2 \cdot 2 + 6) - (4 - 2 \cdot 5) \quad (9)$$

$$3(10 - 4) - 3(12 + 6) - (12 + 6) - (4 - 10) \quad (9)$$

⑦ $5x + 5 = 2x - 7$

$$\underline{-2x \quad -2x} \quad 51 - 20 + 5 \stackrel{?}{=} 15 - 7$$

$$3x + 5 = -7$$

$$51 - 5 = 15 - 15 \checkmark$$

$$\underline{-5 \quad -5}$$

$$\checkmark 51 - 5 = 51 - 5$$

$$\underline{3x = -12}$$

$$1 - \frac{1}{4} - \frac{1}{2}(\frac{1}{4}) - 3(\frac{1}{4}) + 3(\frac{1}{4}) \quad (11)$$

$$1 - x = x + 3 + (x + 3) \quad (11)$$

$$\frac{11}{4} - \frac{1}{4} - \frac{3}{4} - \frac{3}{4} \quad x = -4$$

$$1 - x = x + 3 + x + 3$$

$$\frac{11}{4} - \frac{1}{4} - \frac{3}{4} - \frac{3}{4}$$

$$2x + 6 = x - 1$$

$$\frac{11}{4} - \frac{1}{4} - \frac{3}{4} - \frac{3}{4}$$

$$\underline{-x \quad -x}$$

$$1 - = 2 + 2 + 4$$

$$2 - 2$$

$$\underline{1 - = 2 + 4}$$

$$1 - = 2 + 4$$

$$\frac{1}{4} - = x$$

$$\frac{1}{4} - = x$$

F.6 Review

9) $3(2x-4) - (3x+6) - (2x-1) = -(3x-3)$

$6x - 12 - 3x - 6 - 2x + 1 = -x - 3x + 3$

$x - 17 = -3x + 3$

$+3x \quad +3x$

$4x - 17 = 3$

$+17 \quad +17$

$4x = 20$

$4 \mid 20 = 5$

$x = 5$

$18 = (7+x)P$

$18 = 7P + xP$

$18 - 7P = xP$

$11 = xP$

$11 = xP$

$x = 11$

$3(2 \cdot 5 - 4) - (3 \cdot 5 + 6) - (2 \cdot 5 - 1) \stackrel{?}{=} -(3 \cdot 5 - 3)$

$3(10 - 4) - (15 + 6) - (10 - 1) \stackrel{?}{=} -(15 - 3)$

$3(6) - 21 - 9 \stackrel{?}{=} -(12)$

$18 - 21 - 9 \stackrel{?}{=} -12$

$-12 \stackrel{?}{=} -12$

$-12 = -12 \checkmark$

$18 = 2 + xP$

$16 = xP$

$16 = xP$

11) $2(x+3) + 3x = x-1$

$2x + 6 + 3x = x - 1$

$5x + 6 = x - 1$

$-x \quad -x$

$4x + 6 = -1$

$-6 \quad -6$

$4x = -7$

$4 \quad 4$

$x = -\frac{7}{4}$

$2(-\frac{7}{4} + 3) + 3(-\frac{7}{4}) \stackrel{?}{=} -\frac{7}{4} - 1$

$2(\frac{5}{4}) - \frac{21}{4} \stackrel{?}{=} -\frac{11}{4}$

$\frac{10}{4} - \frac{21}{4} \stackrel{?}{=} -\frac{11}{4}$

$-\frac{11}{4} = -\frac{11}{4} \checkmark$

$$(13) x + 5 = 3(x - 2)$$

$$x + 5 = 3x - 6$$

$$\begin{array}{r} -x \quad -x \\ \hline \end{array}$$

$$5 = 2x - 6$$

$$\begin{array}{r} +6 \quad +6 \\ \hline \end{array}$$

$$\begin{array}{r} 11 = 2x \\ \hline 2 \quad 2 \end{array}$$

$$\frac{11}{2} = x$$

$$\frac{11}{2} + 5 \stackrel{?}{=} 3\left(\frac{11}{2} - 2\right)$$

$$\frac{21}{2} \stackrel{?}{=} 3\left(\frac{7}{2}\right)$$

$$\frac{21}{2} = \frac{21}{2} \checkmark$$

$$(15) 7\left(2x + \frac{3}{14}\right) = \frac{3}{2} \rightarrow \frac{3}{2}$$

$$14x + \frac{21}{14} = \frac{3}{2}$$

$$14x + \frac{3}{2} = \frac{3}{2}$$

$$\begin{array}{r} -\frac{3}{2} \quad -\frac{3}{2} \\ \hline \end{array}$$

$$\begin{array}{r} 14x = 0 \\ \hline 14 \quad 14 \end{array}$$

$$x = 0$$

$$7\left(2 \cdot 0 + \frac{3}{14}\right) \stackrel{?}{=} \frac{3}{2}$$

$$7\left(\frac{3}{14}\right) \stackrel{?}{=} \frac{3}{2}$$

$$\frac{21}{14} \stackrel{?}{=} \frac{3}{2}$$

$$\frac{3}{2} = \frac{3}{2} \checkmark$$