(8) $-366 + (-17) + 734 + 838$

$-383 + 1572$

1189

366
17
383
734
838
1572
−383
1189

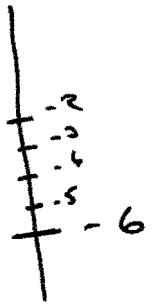
---

(19) $\left(\frac{3}{5}\right)\left(-\frac{8}{6}\right)\left(-\frac{9}{13}\right) = \frac{9}{26}$

---

(18) $-6^\circ C \xrightarrow{+4^\circ C} = -2^\circ C$

$-6 + 4 = -2$



6
−4
2

---

(23) $-\frac{3}{13} + \frac{9}{13} - \frac{4}{13} = \frac{-3+9-4}{13} = \frac{2}{13}$

---

(21) $(-0.74)\cdot(-0.44)$

$= 0.3256$

0.74 → 2
0.44 → 2
296 4
296
.3256

(28) $\frac{1}{6} = 0.1\overline{6}$

$= 0.16666\ldots$

$= 16.666\ %$

$= \underline{16.7\ \%}$

$$\begin{array}{r} 0.166 \\ 6\overline{)10} \\ 6 \\ \hline 40 \\ 36 \\ \hline 40 \end{array}$$

(24) $-4.9 + 9.1$

$= 4.2$

$$\begin{array}{r} {\scriptstyle 8\ 1} \\ 9.1 \\ -\ 4.9 \\ \hline 4.2 \end{array}$$

(29) $3 \cdot (-2)^5 = 3 \cdot (-32) = \underline{-96}$

(30) $-18^2 + 5[6 \div (17-15)]$

$-18^2 + 5[6 \div 2]$

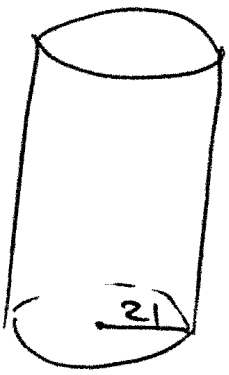
$-(18^2) + 5 \cdot [3]$

$-324 + 15$

$= -309$

$$\begin{array}{r} 18 \\ 18 \\ \hline 144 \\ 18 \\ \hline 324 \\ -\ 15 \\ \hline 309 \end{array}$$

(34)



$V = \pi \cdot R^2 \cdot h$

$= \pi \cdot (21)^2 (42)$

21
21
21
42
441.
42
882
1764
18522.
3.14
74088
18522
49566
52,159.08

18.
3

(31) $25(-125) \div [5(8-3)^3]$

$25(-125) \div [5 \cdot (5)^3]$

$25 \cdot (-125) \div [5 \cdot 125]$

5 -1
~~25~~ · (~~-125~~)
~~5~~ · ~~125~~
1

$= -5$

(38) $8x^2 - 10x - 10x^2 + 5x$

$= -2x^2 - 5x$

(40) $-\frac{3}{4}(40z) = -30z$

(42) $8n + 11(n+3) - 6$

$= 8n + 11n + 33 - 6$

$= 19n + 27$

(41) $11(6c - 9)$

$66c - 99$

(46) $x + (x+3)$

$= x + x + 3$

$= 2x + 3$

(53) $-\frac{7}{3} / -\frac{7}{1} = -\frac{3}{7} x \quad / \cdot -\frac{7}{3}$

$16\frac{1}{3} = \frac{49}{3} = x$

(52) $\frac{5}{4} / \frac{4}{5} x = \frac{40}{1} \quad / \cdot \frac{5}{4}$

$x = 50$

(48) $z^2 + 2z$

(50) $x - \frac{4}{5} = -\frac{1}{5}$

$+\frac{4}{5} \quad +\frac{4}{5}$

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

(57) $14\frac{2}{7}\%$ of 1260 $\qquad P \cdot B = A$

P B

$14\frac{2}{7}\% = \frac{14\frac{2}{7}}{100} = \frac{\frac{100}{7}}{\frac{100}{1}}$ $\qquad \frac{14}{98}$

$= \frac{100}{7} \div \frac{100}{1} = \frac{100}{7} \cdot \frac{1}{100} = \frac{1}{7}$

$\frac{1}{7} \cdot \frac{1260}{1} = A$

$\frac{1260}{7} = 180$

$$\begin{array}{r} 180 \\ 7\overline{)1260} \\ 7 \\ \hline 56 \\ 56 \\ \hline 0 \end{array}$$

(58) $P \cdot B = A$

$\frac{P \cdot 50}{50} = \frac{18}{50} \cdot \frac{9}{25}$

$P = \frac{9}{25}$

$= 0.36$

$= 36\%$

$$\begin{array}{r} 0.36 \\ 25\overline{)90} \\ 75 \\ \hline 150 \\ 150 \\ \hline 0 \end{array}$$

(62) $\frac{V}{6} - 2 = -5$

$+2 \quad +2$

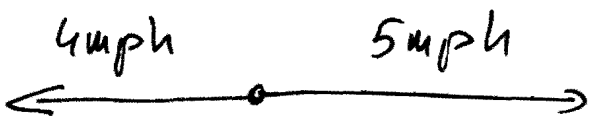
$\frac{6}{1} \cdot \frac{V}{6} = -3 \cdot \frac{6}{1}$

$V = -18$

$\frac{V}{6} = \frac{3}{1}$

$V = \frac{6 \cdot (-3)}{1} = -18$

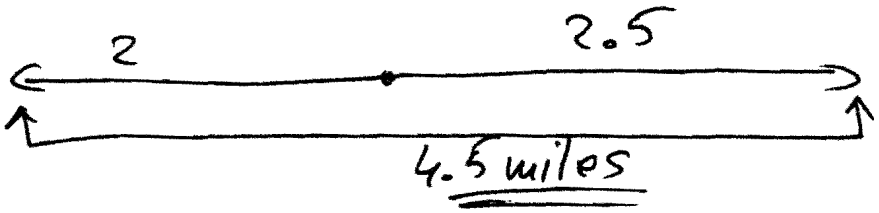
(54)



$d = r \cdot t$ $\quad t = 30\text{ min} = \frac{1}{2}\text{ h}$

1st: $d_1 = 4 \cdot \frac{1}{2} = 2$ miles

2nd $d_2 = 5 \cdot \frac{1}{2} = \frac{5}{2} = 2.5$ miles



(59) 21%

$P \cdot B = A$

$0.21 \cdot 16{,}000 = A$

3360 L

$$\begin{array}{r} 0.21 \\ 16 \\ \hline 126 \\ 21 \\ \hline 3.36 \end{array}$$

(66) $32x + 3(x-2) = 34$

$32x + 3x - 6 = 34$

$35x - 6 = 34$

$+6 \quad +6$

$\frac{35x}{35} = \frac{40}{35}$ 8 2

$x = \frac{8}{7} = 1\frac{1}{7}$

(67) $2 - 3x = 103 - 10(2x+5)$

$2 - 3x = 103 - 20x - 50$

$2 - 3x = 53 - 20x$

$+20x \quad +20x$

$2 + 17x = 53$

$-2 \quad -2$

$\frac{17x}{17} = \frac{51}{17}$

$x = 3$

$2x^2 + 10x = 2 \cdot (3)^2 + 10(3)$

$= 2 \cdot (9) + 10 \cdot (3)$

$= 18 + 30$

$= 48$

(68)

$$\frac{8x}{8} = \frac{48}{8}$$

$$x = 6$$

(72)

	A	C	V
1st	15	1.79	26.85
2nd	10	1.17	11.7
MIXTURE	25	X	25x

15
1.79
135
105
15
26.85
11.70
38.55

$26.85 + 11.7 = 25x$

$\frac{38.55}{25} = \frac{25x}{25}$

$1.54

1.54
25 | 38.55
26
135
125
105

(70) $65 / yd^3

$24

X = NUMBER OF CUBIC YARDS

$$65 \cdot X + 24 = 377$$
$$-24 \quad -24$$

$$\frac{65X}{65} = \frac{353}{65}$$

$X = 5$

$$65\overline{)353} \quad 5, \ 325$$

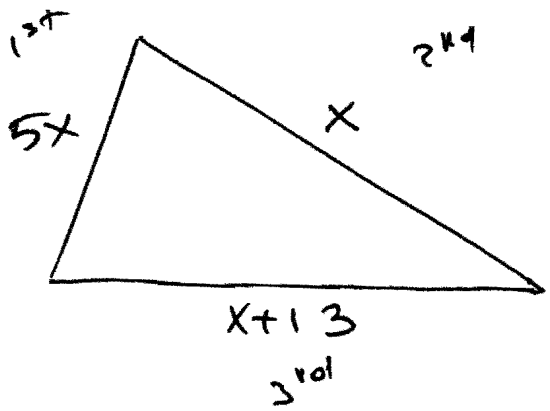
(69)

$$6x + 5 = 47$$
$$-5 \quad -5$$

$$\frac{6x}{6} = \frac{42}{6}$$

$x = 7$

(75)



$x + 5x + x + 13 = 55$

$7x + 13 = 55$

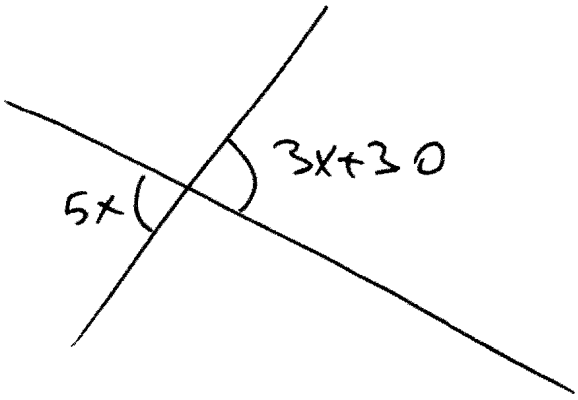
$-13 \quad -13$

$\frac{7x}{7} = \frac{42}{7}$

$x = 6$

1st : 30
2nd : 6
3rd : 19

(76)



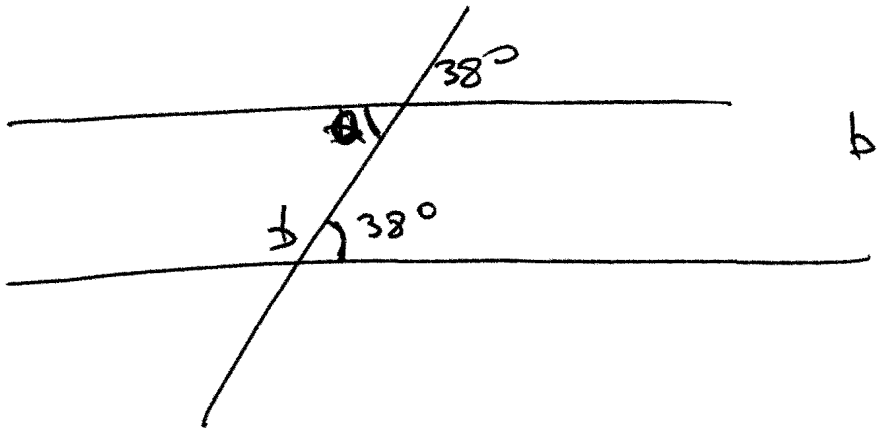
$5x = 3x + 30$

$-3x \quad -3x$

$\frac{2x}{2} = \frac{30}{2}$

$x = 15°$

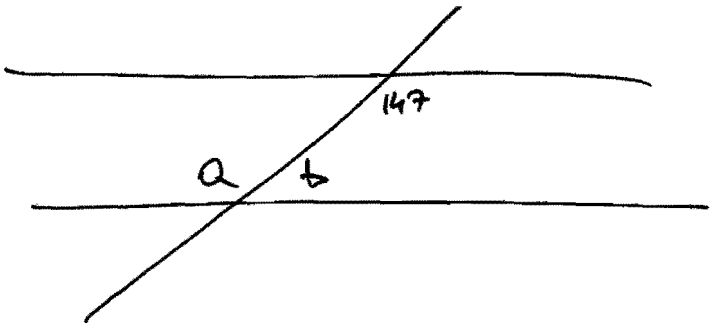
(77)



$a = 38°$

$b = 180 - 38 = 142$

(78)



$a = 147°$

(82) $S = R - r \cdot R$ $\rightarrow r = 15\% = 0.15$

12-24 bags

$S = 3.50 - 0.15 \cdot 3.50$

$= 3.50 - 0.525$

$= 2.975$

$r = 20\%$

25 - up

$$\begin{array}{r} 0.15 \\ \cdot\ 3.5 \\ \hline 75 \\ 45 \\ \hline 525 \end{array}$$

$$\begin{array}{r} {\scriptstyle 4\ 9} \\ 3.\cancel{5}00 \\ -\ 0.525 \\ \hline 2.975 \end{array}$$

(81) $S = C + r \cdot C$

$C = 229$

$S = 309.15$

$309.15 = 229 + r \cdot 229$

$-229 \qquad -229$

$80.15 = r \cdot 229$

$\frac{80.15}{229} = \frac{r \cdot \cancel{229}}{\cancel{229}}$

$$\begin{array}{r} 0.35 \\ 229\overline{)\ 80.15} \\ 687 \\ \hline 1145 \end{array}$$

35%

(91) $\frac{9x}{9} < \frac{72}{9}$

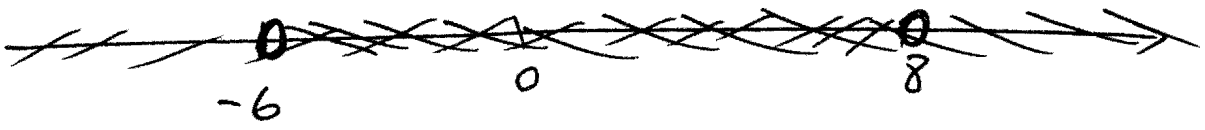
$x < 8$

AND

$x + 13 > 7$

$-13 \quad -13$

$x > -6$



$(-6, 8)$

(87) $A = \{2, 5, 9\}$

$B = \{3, 5, 8\}$

$A \cup B = \{2, 3, 5, 8, 9\}$

(88) $A = \{20, 40, 60\}$

$B = \{10, 20, 30\}$

$A \cap B = \{20\}$

(94)

$x + 9 \geq 17$

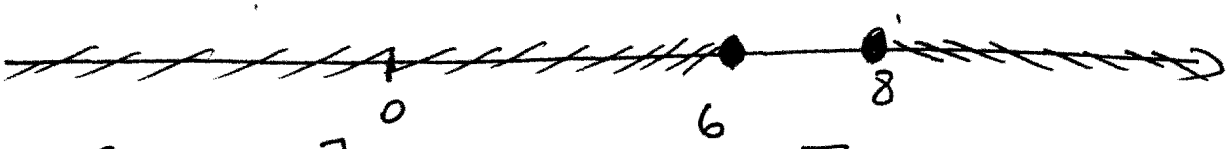
$-9 \quad -9$

$x \geq 8$

OR

$\frac{10x}{10} \leq \frac{60}{10}$

$x \leq 6$



$(-\infty, 6] \cup [8, \infty)$