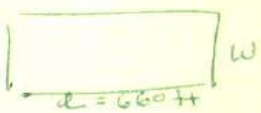
3 CHAPTER REVIEW

(10) $6 \cdot 11 = \frac{r}{6} \cdot 6$

$R = 66$

(12) KI:



Area = 211,200 ft^2

w = width (ft)

EQ: $\frac{660w}{660} = \frac{211200}{660}$ $(w = 320)$

Width is 320 ft

(14) $11 = 5y - 4$

$y = 3$

(16) $\frac{3}{2}v + 2 = 20$

$-2 \quad -2$

$\frac{2}{3}\cdot\frac{3}{2}v = 18\left(\frac{2}{3}\right)$

$V = 12$

(18) $-110 = -4c - 6c$

$-110 = -10c$

$\frac{-110}{-10} = \frac{-10c}{-10}$

$C = 11$

(20) $z + 5 - 4z = 8$

$z = -1$

(22) $4y - 1(y - 4) = -20$

$4y - y + 4 = -20$

$3y + 4 = -20$

$-4 \quad -4$

$\frac{3y}{3} = \frac{-24}{3}$

$y = -8$

(24) $16H - 4(5H - 7) = 4$

$16H - 20H + 28 = 4$

$-4H + 28 = 4$

$-28 \quad -28$

$\frac{-4H}{-4} = \frac{-24}{-4}$

$H = 6$

(26) $\frac{4}{3}(2x - 1) = \frac{-12}{1} \cdot \frac{3}{4}$

$2x - 1 = -9$

$+1 \quad +1$

$\frac{2x}{2} = \frac{-8}{2}$

$x = -4$

(28) KI: BUY 5 TICKETS
$2.50 fee per ticket
Delivery Fee $15
Total Cost $352.50

VARIABLE: x = price ($'s) per ticket

EQUATION: $5(x + 2.5) + 15 = 352.50$

SOLVE

ANSWER IN WORDS

EACH TICKET COSTS $65

(29) $-3z - 1 = 8 - 3z$

$+3z \quad +3z$

$-1 \neq 8$

x = NO SOLUTION $\emptyset$

(30) $m = 1$

(33) $4(x - 3) = -2(6 - 2x)$

$4x - 12 = -12 + 4x$

$-4x \quad -4x$

$-12 = -12$

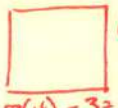
x = ALL REAL NUMBERS $\mathbb{R}$

(34) $a = -5$

(36)
$1.5(N+20) = .5(3N+60)$
$1.5N + 30 = 1.5N + 30$
$-1.5N \quad -1.5N$
$30 = 30$ T
X = ALL REAL #'S

(37) $6x + 5 = 8x - 3$
$-6x \quad -6x$
$5 = 2x - 3$
$+3 \quad +3$
$\frac{8}{2} \quad \frac{2x}{2}$ $x = 4$

(37A)



$6(4)+5 = 29$
$8(4) - 3 = 29$

(37B) $P = 4(29)$
Perimeter = 116

Solve the proportion. Check your solution.

(38) $\frac{56}{16} = \frac{x}{2}$
$\frac{16x}{16} = \frac{56 \cdot 2}{16}$
$x = 7$

(40) $\frac{2}{7} = \frac{m}{91}$
$\frac{7m}{7} = \frac{2 \cdot 91}{7}$
$m = 26$

(42) $\frac{9}{4} = \frac{3a}{20}$
$\frac{12a}{12} = \frac{180}{12}$
$a = 15$

(44) x = # GALLONS paint
$\frac{\text{Paint}}{\text{Covers}} = \frac{1 \text{ GAL}}{560 \text{ SQFT}} = \frac{x}{1400}$
$x = 1 \cdot 1400 / 560 = 2.5$
Need 2.5 GALS PAINT

(46) $z = 2.5$

(48) $m = -4$

(50) $\frac{5-c}{3} = \frac{2c+2}{-4}$
$-4(5-c) = 3(2c+2)$
$-20 + 4c = 6c + 6$
$-4c \quad -4c$
$-20 = 2c + 6$
$-6 \quad -6$
$\frac{-26}{2} = \frac{2c}{2}$
$c = -13$

(51) w = words
$\frac{\text{words}}{\text{minutes}} = \frac{65}{2} = \frac{w}{20}$
$w = 65 \cdot 20 \div 2 = 650$
Type 650 words

(52) $\frac{1 \text{ cm}}{12 \text{ km}} = \frac{6.8 \text{ cm}}{D}$
$D = 81.6$
ABOUT 81.6 km between cities

(54) Proportion: $\frac{117}{N} = \frac{78}{100}$
EQUATION: $117 = .78N$
$N = 150$

(56) Proportion: $\frac{P}{100} = \frac{18}{60}$
EQUATION: $P \cdot 60 = 18$
$P = 30\%$

(58) $x + 7y = 0$
$-x \quad -x$
$\frac{7y}{7} = \frac{-x}{7}$
$y = -\frac{1}{7}x$ or $y = \frac{-x}{7}$

(60) $4y - x = 20 - y$
$+y \quad +y$
$5y - x = 20$
$+x \quad +x$
$\frac{5y}{5} = \frac{x}{5} + \frac{20}{5}$
$y = \frac{1}{5}x + 4$

(61A) $V = lwh$
$\frac{V}{lw} = \frac{lwh}{lw}$
$h = \frac{V}{lw}$

(61B) $h = ?$
$V = 5850 \text{ in}^3$
$l = 30$
$w = 13$
$h = \frac{5850}{(30)(13)} = 15$
height is 15 in