

3

CHAPTER REVIEW

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

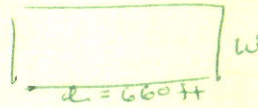
$R = 66$

14) $11 = 5y - 4$

$Y = 3$

12)

KI:



Area = 211,200 ft²

W = width (ft)

EQ: $\frac{660W}{660} = \frac{211200}{660}$

Width is 320 ft

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

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$V = 12$

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

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

$C = 11$

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

$Z = -1$

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

$4y - y + 4 = -20$

$3y + 4 = -20$

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

$Y = -8$

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

$16H - 20H + 28 = 4$

$-4H + 28 = 4$

$-4H = -24$

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

$H = 6$

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

$2x - 1 = -9$

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

$X = -4$

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) $\frac{-3z - 1}{+3z} = \frac{8 - 3z}{+3z}$

$-1 \neq 8$

$X = \text{NO SOLUTION } \emptyset$

30) $M = 1$

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

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

$-12 = -12$

$X = \text{ALL REAL NUMBERS } \mathbb{R}$

34 $a = -5$

36

$$1.5(N+20) = .5(3N+60)$$

$$1.5N + 30 = 1.5N + 30$$

$$\begin{array}{r} -1.5N \\ \hline 30 = 30 \quad T \end{array}$$

$X = \text{ALL REAL \#}'S$

37 $6x + 5 = 8x - 3$

$$\begin{array}{r} -6x \quad -6x \\ \hline 5 = 2x - 3 \\ +3 \quad +3 \\ \hline 8 = 2x \end{array}$$

37A $\frac{8}{2} = \frac{2x}{2} \rightarrow X=4$

37B

$$6(4) + 5 = 29$$

$$8(4) - 3 = 29$$

$$P = 4(29) = 116$$

Perimeter = 116

Solve the proportion. Check your solution.

38. $\frac{56}{16} = \frac{x}{2}$

$$\frac{6x}{16} = \frac{56 \cdot 2}{16}$$

$X = 7$

40. $\frac{2}{7} = \frac{m}{91}$

$$\frac{7m}{7} = \frac{2 \cdot 91}{7}$$

$m = 26$

42. $\frac{9}{4} = \frac{3a}{20}$

$$\frac{18a}{12} = \frac{180}{12}$$

$a = 15$

44 $X = \# \text{ GALLONS paint}$

$$\frac{\text{Paint} + 1 \text{ gal}}{\text{Covers } 560 \text{ sqft}} = \frac{x}{1400}$$

$$x = 1 \cdot 1400 / 560 = 2.5$$

Need 2.5 GALS PAINT

46 $z = 2.5$

48 $m = -4$

52 $\frac{1 \text{ cm}}{12 \text{ km}} = \frac{6.8 \text{ cm}}{D}$

50. $\frac{5-c}{3} = \frac{2c+2}{-4}$

$$-4(5-c) = 3(2c+2)$$

$$\begin{array}{r} -20 + 4c = 6c + 6 \\ -4c \quad -4c \\ \hline -20 = 2c + 6 \\ -6 \quad -6 \\ \hline -26 = 2c \end{array}$$

$$\frac{-26}{2} = \frac{2c}{2}$$

$$c = -13$$

51 $w = \text{words}$

$$\frac{\text{Words}}{\text{Minutes}} = \frac{65}{2} = \frac{w}{20}$$

$$w = 65 \cdot 20 \div 2 = 650$$

Type 650 words

$D = 81.6$

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 $x + 7y = 0$

$$\begin{array}{r} -x \\ \hline 7y = -x \\ \div 7 \\ \hline y = -\frac{x}{7} \end{array}$$

$y = -\frac{1}{7}x$ OR $y = \frac{-x}{7}$

60 $4y - x = 20$

$$\begin{array}{r} +x \\ \hline 4y = x + 20 \\ \div 4 \\ \hline y = \frac{x}{4} + 5 \end{array}$$

$$\begin{array}{r} 5y - x = 20 \\ +x \quad +x \\ \hline 5y = x + 20 \\ \div 5 \\ \hline y = \frac{x}{5} + 4 \end{array}$$

$y = \frac{1}{5}x + 4$

61A $V = lwh$

$$\frac{V}{lw} = h$$

61B $h = ?$

$$V = 5850 \text{ in}^3$$

$$l = 30$$

$$w = 13$$

$$h = \frac{5850}{(30)(13)} = 15$$

height is 15 in