

9.1.3

HWK

9-33)

- a)  $m\angle 2 = m\angle 7$  then  $c$  is parallel to  $d$   
rule is alternate interior angles are =
- b)  $m\angle 3 = m\angle 11$  then  $e$  is  $\parallel$  to  $f$ ,  
rule is corresponding  $\angle$ 's are =
- c)  $m\angle 1 = m\angle 12$  none
- d)  $m\angle 13 = m\angle 12$  then  $c$  is  $\parallel$  to  $d$   
rule vertical  $\angle$ 's, then corresponding angles are =
- e)  $\angle 6$  and  $\angle 7$  are supplementary ( $180^\circ$ )<sup>sum</sup>  
then  $c$  is  $\parallel$  to  $d$ , suppl. same side int.  $\angle$ 's are =

9-34)

a)  $2x + 3 + 132 = 180$

$$2x + 135 = 180$$

$$\begin{array}{r} -135 \quad -135 \\ \hline 2x = 45 \\ \hline x = 22.5^\circ \end{array}$$

straight angle



(ext. < rule)

$$\begin{array}{r} b) \quad 90 + e = 131 \\ -90 \quad -90 \\ \hline e = 41 \end{array}$$

$$\begin{array}{r} 180 \\ -131 \\ \hline 49 = d \end{array}$$

(straight angle rule)

$$\begin{array}{r} c) \quad 19 + 24 = f \\ 43^\circ = f \end{array}$$

(exterior angle rule)

9-35)

$$a) \quad \frac{5}{4} \div \frac{7}{16} = \frac{5}{4} \cdot \frac{16}{7} = \frac{20}{7} = 2\frac{6}{7}$$

$$b) \quad -\frac{10}{13} \cdot \frac{5}{11} = -\frac{50}{143}$$

$$c) \quad \frac{9}{11} \div \left(-\frac{20}{21}\right) = \frac{9}{11} \cdot \left(-\frac{21}{20}\right) = -\frac{189}{220}$$

$$d) \quad -\frac{8}{3} \div \left(-\frac{5}{18}\right) = -\frac{8}{3} \cdot \left(-\frac{18}{5}\right) = \frac{48}{5} = 9\frac{3}{5}$$

9-36)

$$\begin{array}{r} a) \quad 24 = 3x + 3 \\ -3 \quad -3 \\ \hline 21 = 3x \\ 3 \quad 3 \\ \hline 7 = x \end{array}$$

$$\begin{array}{r} b) \quad 2(x-6) = x-14 \\ 2x-12 = x-14 \\ +12 \quad +12 \\ \hline 2x = x-2 \\ -x \quad -x \\ \hline x = -2 \end{array}$$

$$\begin{array}{r}
 c) \quad 3(2x-3) = 4x-5 \\
 6x-9 = 4x-5 \\
 \quad +9 \quad \quad +9 \\
 \hline
 6x = 4x+4 \\
 -4x \quad -4x \\
 \hline
 2x = 4 \\
 \quad 2 \quad 2 \\
 x = 2
 \end{array}$$

$$\begin{array}{r}
 d) \quad \frac{3}{4}x = 2x-5 \\
 -2x \quad -2x \\
 \hline
 -1.25x = -5 \\
 -1.25 \quad -1.25 \\
 \hline
 x = 4
 \end{array}$$

9-37)

a)

$$I = P \cdot r \cdot t$$

$$I = 45 \cdot (0.02) \cdot 6$$

$$I = \$5.40$$

$$\begin{array}{r}
 \$5.40 + \$45 = \$50.40 \\
 \text{Interest} \quad \text{principal} \quad \text{total} \\
 \text{amount}
 \end{array}$$

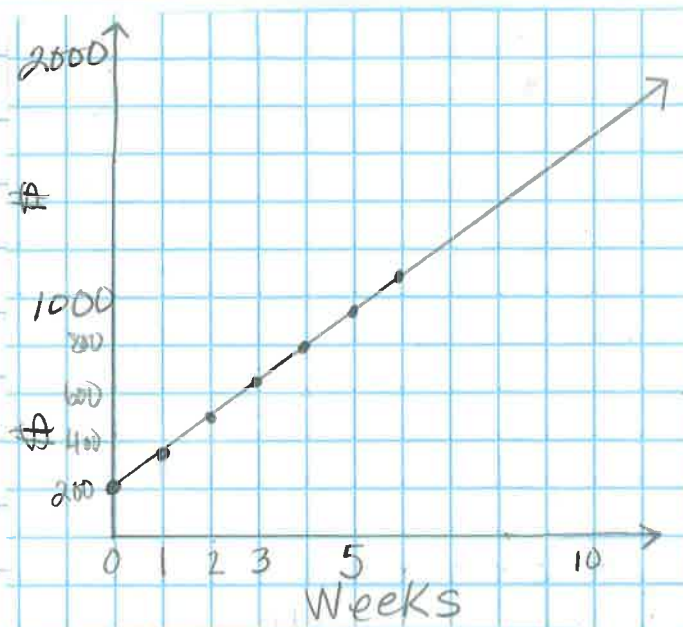
b.) SKIP

9-38)

(a)

Week	1	2	3	4	5	6	7	8	9	10	11
\$	200	350	500	650	950	1100	1250	1400	1550	1700	1850

- b) - in the table between weeks 10 and 11  
- on the graph; see where the y-value for  $x=18$  is on the graph



- c) The entries in the table grow by a constant amount ( $\$150$  each week) and the graph of the values makes a straight line!!  
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