Chapter 1 **Quiz Review**
For use after Section 1.2

① Keep Flip Change
② Distribute
③ Combine Like Terms on both sides of equal sign.
④ Solve

Solve the equation. Check your solution.

1. $-\frac{1}{2} = y + 1$
$\quad +1 \qquad +1$
$\overline{0.5 = y}$

$\boxed{y = 0.5}$

2. $-3n + w = 2n$
$\quad +3n \qquad +3n$
$\qquad w = 5n$

$\boxed{w = 5n}$

3. $\dfrac{1.2m}{1.2} = \dfrac{0.6}{1.2}$

$m = \dfrac{0.6}{1.2} = \dfrac{6}{12} = \dfrac{1}{2}$

$\boxed{m = \frac{1}{2}}$

4. $q + 2.7 = -0.9$
$\quad -2.7 \quad -2.7$
$\qquad q = -3.6$

$\boxed{q = -3.6}$

Solve the equation. Check your solution.

5. $-4k + 17 = 1$
$\qquad -17 \quad -17$
$\dfrac{-4k}{-4} = \dfrac{-16}{-4}$

$\boxed{K = 4}$

6. $\frac{1}{4}z + 8 = 12$
$\qquad -8 \quad -8$
$4 \cdot \frac{1}{4}z = 4 \cdot 4$

$z = 16$

$\boxed{z = 16}$

7. $-3(2n + 1) + 7 = -5$
$-6n + -3 + 7 = -5$
$-6n + 4 = -5$
$\qquad -4 \quad -4$
$\dfrac{-6n}{-6} = \dfrac{-9}{-6} = \dfrac{3}{2}$

$\boxed{n = 1\frac{1}{2}}$

8. $2.5(t + 2) + 6 = 9$
$2.5t + 5 + 6 = 9$
$2.5t + 11 = 9$
$\qquad -11 \quad -11$
$\dfrac{2.5t}{2.5} = \dfrac{20}{2.5} = \dfrac{200}{25}$

$\boxed{t = 8}$

Find the value of x. Then find the angle measures of the polygon.
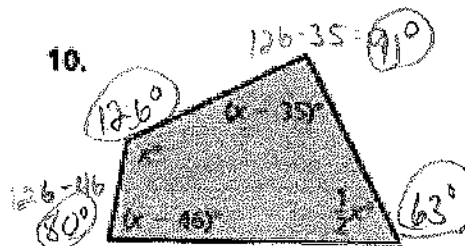
9.
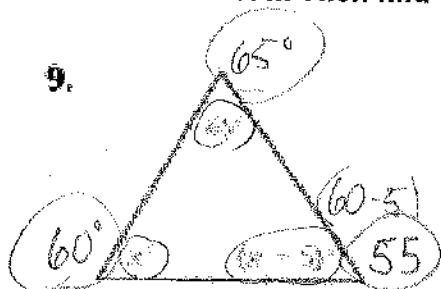
Sum of angle measures: 180°

$x + (x - 5) + 65 = 180$
$2x + 60 = 180$
$\qquad -60 \quad -60$
$2x = 120$

$\boxed{x = 60}$

10.

Sum of angle measures: 360°

$x + (x - 35) + \frac{1}{2}x + (x - 46) = 360$
$3.5x - 81 = 360$
$\qquad +81 \quad +81$
$\dfrac{3.5x}{3.5} = \dfrac{441}{3.5}$
$x = \dfrac{4410}{35}$

$\boxed{x = 126}$

11. The equation $P = 2.5m + 35$ represents the price P (in dollars) of a bracelet, where m is the cost of the materials (in dollars). The price of a bracelet is \$115. What is the cost of the materials? (Section 1.2)

$$P = 115$$
$$115 = 2.5m + 35$$
$$-35 \qquad -35$$
$$80$$

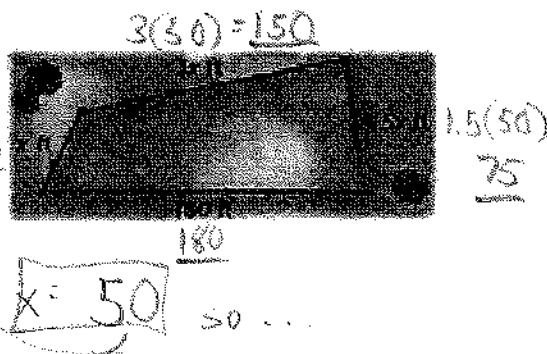$$\frac{2.5m}{2.5} = \frac{80}{2.5} \qquad = \frac{800}{25}$$

$$\boxed{m = 32}$$

12. A 455-foot fence encloses a pasture. What is the length of each side of the pasture? (Section 1.2)

$$x + 3x + 1.5x + 180 = 455$$
$$5.5x + 180 = 455$$
$$-180 \qquad -180$$

$$\frac{5.5x}{5.5} = \frac{275}{5.5} = \frac{2750}{55} = 50$$

$$\begin{array}{c} 455 \\ -180 \\ \hline 275 \end{array}$$

$$3(50) = 150$$
$$50 \qquad 1.5(50)$$
$$\overline{35}$$
$$180$$

$$\boxed{x = 50}$$

13. A machine prints 230 movie posters each hour. Write and solve an equation to find the number of hours it takes the machine to print 1265 posters. (Section 1.1)

230 posters per hour

Equation $\longrightarrow$ $\dfrac{230h}{230} = \dfrac{1265}{230}$

$$\boxed{h = 5.5 \text{ hours}}$$

14. Use the table to write and solve an equation to find the number of points p you need to score in the fourth game so that the mean number of points is 20. (Section 1.2)

Game	1	2	3	4	Average
Points	8	9	12	p	20

$$\boxed{p = 51 \text{ points}}$$

$$4 \cdot \frac{8 + 9 + 12 + p}{4} = 20 \cdot 4$$
$$8 + 9 + 12 + p = 80$$
$$29 + p = 80$$
$$-29 \qquad -29$$
$$p = 51$$