Solve the following system:

$$-4x + 9y = 9 \rightarrow -4x + 9y = 9$$
$$3(x - 3y = -6) \rightarrow 3x - 9y = -18$$

$$\frac{-x}{-1} = \frac{-9}{-1}$$

$$x = 9$$

$$9 - 3y = -6$$
$$-9 \qquad -9$$

$$\frac{-3y}{-3} = \frac{-15}{-3}$$

$$y = 5$$

$$(9, 5)$$

## Homework Check:

**8.** pentagon *FIVER*

**9.** quadrilateral *FOUR*

**10.** equilateral quadrilateral *BLOC*

**12.** One possibility is $\angle C$ and $\angle Y$ are consecutive angles $\overline{CY}$ and $\overline{YN}$ are consecutiye sides.

**13.** 9

possible answer:

**14.** $\overline{AC}$, $\overline{AD}$, $\overline{BD}$, $\overline{BE}$, $\overline{CE}$

**15.** *TIN*

**16.** *WEN*

**17.  a.** $a = 44, b = 58, c = 34$

   **b.** $m\angle T = 87°$

**18.** $\overline{PA} \cong \overline{FI}$ and $\angle IVE \cong \angle ANC$

**21.** 84 in.

**22.** 5.25 cm

**23.** $AB = 14$ m, $CD = 25$ m

**24.** complementary angles: $\angle AOS$ and $\angle SOC$;

   vertical angles: $\angle OCT$ and $\angle ECR$ or $\angle TCE$

   and $\angle RCO$

# 1.5 - Triangles

Things you may assume:

    -lines are straight, if two lines intersect they intersect at 1 point

    -points on a line are collinear and that all points shown in a diagram are coplanar unless planes are drawn to show that they are noncoplanar

Things you may NOT assume:

    -parallel & perpendicular

    -congruency

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**Right Triangle -** a triangle that has one right angle

**Acute Triangle -** a triangle that has three acute angles

**Obtuse Triangle -** a triangle that has one obtuse angle

**Scalene Triangle -** a triangle with no congruent sides

**Equilateral Triangle -** a triangle that has three congruent sides

**Isosceles Triangle -** a triangle that has at least two congruent sides