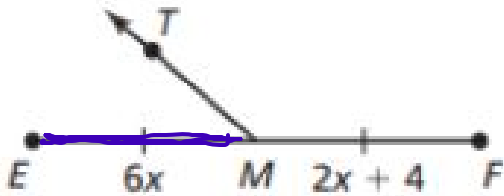


Name Key

Geo Review for Assess. 1

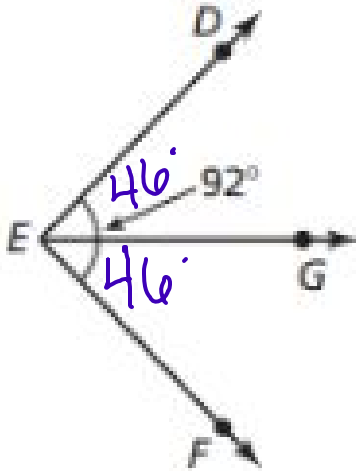
1) Find the length of EM.



$$\begin{aligned} 6x &= 2x + 4 \\ -2x & \quad -2x \\ \hline 4x &= 4 \quad x=1 \\ \frac{4x}{4} & \quad \frac{4}{4} \\ Em &= 6(1) = \boxed{6} \end{aligned}$$

2)

\overline{EG} bisects $\angle DEF$.
Find $m\angle DEG$ and
 $m\angle GEF$.



Angle bisector divides
an angle
into
 $\frac{92}{2} = 46^\circ$ into
 $2 \cong \angle$'s.

$$\begin{aligned} m\angle DEG &= 46^\circ \\ m\angle GEF &= 46^\circ \end{aligned}$$

- 3) Complementary Angles = 2 \angle 's that add to 90.

Find $m\angle CAD$
and $m\angle BAD$.

$$5x + 57 + x + 15 = 90$$

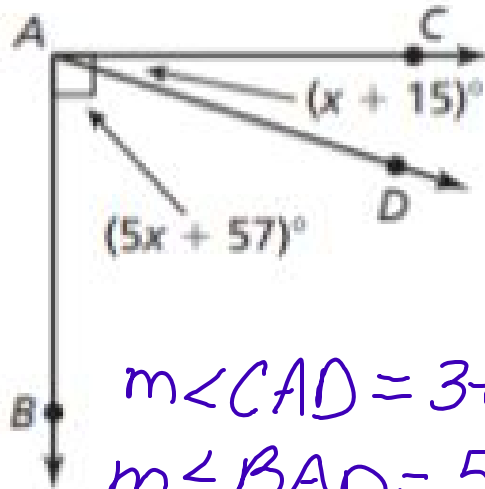
$$6x + 72 = 90$$

$$-72 \quad -72$$

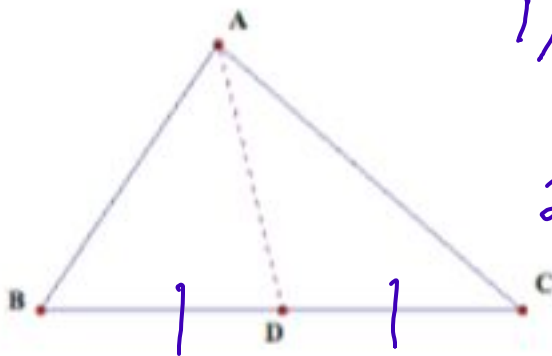
$$\underline{6x = 18} \quad x = 3$$

$$m\angle CAD = 3 + 15 = 18^\circ$$

$$m\angle BAD = 5(3) + 57 = 72^\circ$$



- 4) Segment AD is a median. State 2 conclusions you can make.

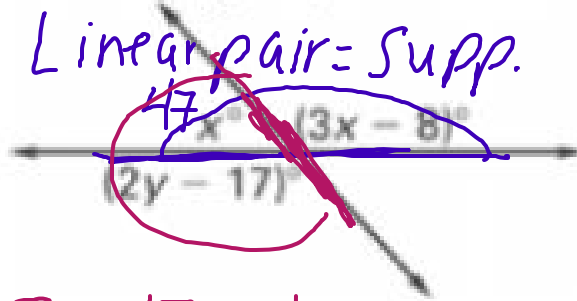


1) D is the midpoint of \overline{BC}

2) $\overline{BD} \cong \overline{CD}$

5)

In the diagram, what are the values of x and y ?



$$x + 3x - 8 = 180$$

$$4x - 8 = 180$$

$$\begin{array}{r} +8 \\ +8 \end{array}$$

$$\frac{4x}{4} = \frac{188}{4} \quad \boxed{x = 47}$$

$$2y - 17 + 47 = 180$$

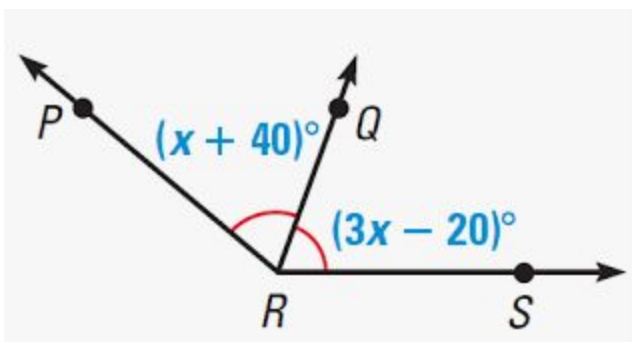
$$2y + 30 = 180$$

$$\begin{array}{r} -30 \\ -30 \end{array}$$

$$\frac{2y}{2} = \frac{150}{2}$$

$$\boxed{y = 75}$$

6) If ray RQ is the angle bisector of $\angle PRS$, Find $m\angle PRQ$, $m\angle SRQ$ and $m\angle PRS$



$$m\angle PRQ = 30 + 40 = \boxed{70^\circ}$$

$$m\angle SRQ = 3(30) - 20 = \boxed{70^\circ}$$

$$m\angle PRS = 2(70) = \boxed{140^\circ}$$

$$x + 40 = 3x - 20$$

$$\begin{array}{r} -x \\ -x \end{array}$$

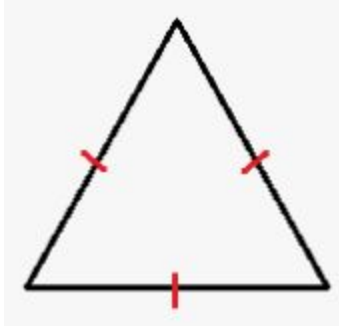
$$40 = 2x - 20$$

$$\begin{array}{r} +20 \\ +20 \end{array}$$

$$\frac{60}{2} = \frac{2x}{2} \quad x = 30$$

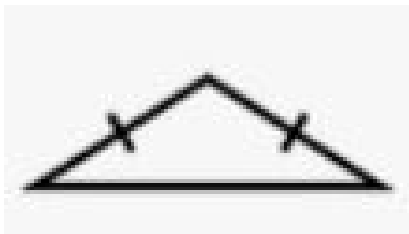
7) State what type of triangle each is, based on their markings

a)



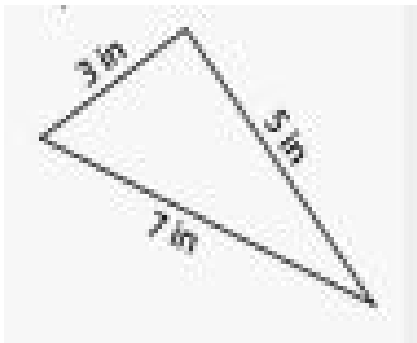
Equilateral

b)



Isosceles

c)



Scalene