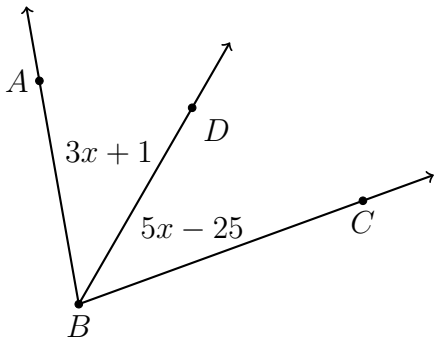
BECA / Dr. Huson / Geometry Name:
1-10 Solving for angle bisectors

I can solve for angle measures

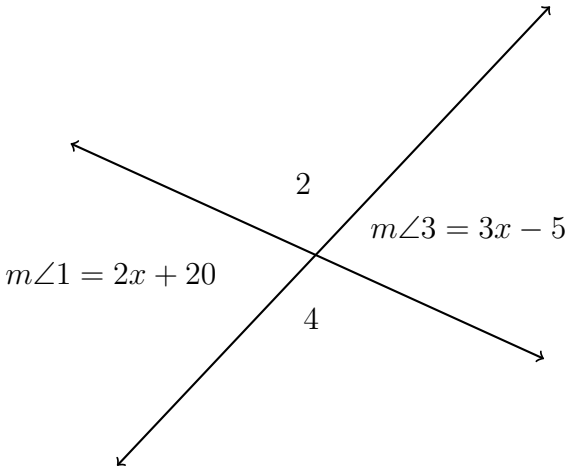
1. Do Now: Given M bisects $\overline{PQ}$, $PM = x + 7$, $PQ = 23$.

(a) Mark the diagram with the values and tick marks
(b) Write an equation and solve for x
(c) Check your result

2. $m\angle ABD = 3x + 1$, $m\angle DBC = 5x - 25$. Find $m\angle ABC$.



3. Two lines intersect with vertical angles $m\angle 1 = 2x + 20$ and $m\angle 3 = 3x - 5$. Find $m\angle 2$.



4. Write the appropriate name for the type of angle depending on its measure in degrees. (acute, right, obtuse, or straight)

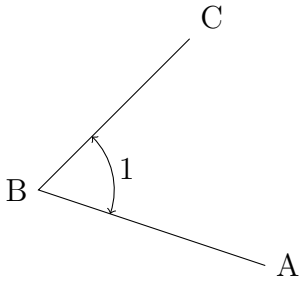
   (a) $m\angle = 90$: _____

   (b) $90 < m\angle < 180$: _____

   (c) $0 < m\angle < 90$: _____

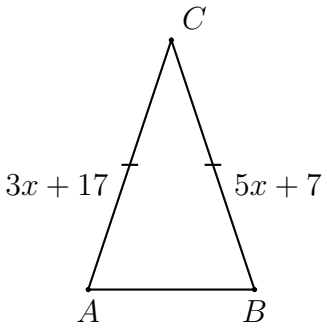
   (d) $m\angle = 180$: _____

5. Write down the name of the given angle three different ways.



6. Points that are all located on the same plane are _____.

7. Spicy: Given isosceles $\triangle ABC$ with $\overline{AC} \cong \overline{BC}$. $AC = 5x + 7$ and $BC = 3x + 17$. Find AC.



8. Given points on the number line $E(1.2)$ and $G(5.6)$ as shown. Find the midpoint F of $\overline{EG}$. Mark it on the number line and label it as an ordered pair.