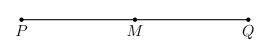
BECA / Dr. Huson / Geometry 1-10 Solving for angle bisectors Name:

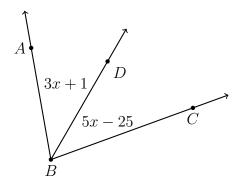
I can solve for angle measures

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

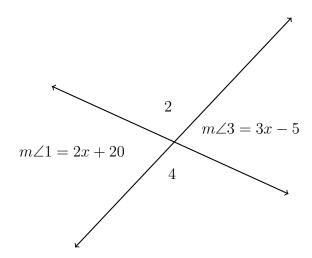


- (a) Mark the diagram with the values and tick marks
- (b) Write an equation and solve for x
- (c) Check your result

2. The ray \overrightarrow{BD} bisects $\angle ABC$. $m\angle ABD = 3x + 1$, $m\angle DBC = 5x - 25$. 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)

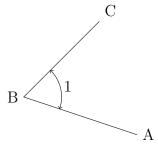
(a)
$$m \angle = 90$$
:

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

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

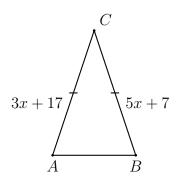
(d)
$$m \angle = 180$$
:

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.

