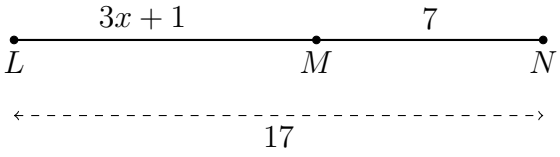
BECA / Dr. Huson / Geometry Name:
1-6 Angle measures

I can measure angles

1. Do Now: Given $\overline{LMN}$, $LM = 3x + 1$, $MN = 7$, $LN = 17$. Find x.



   (a) Write down an equation to represent the situation.

   (b) Solve for x.

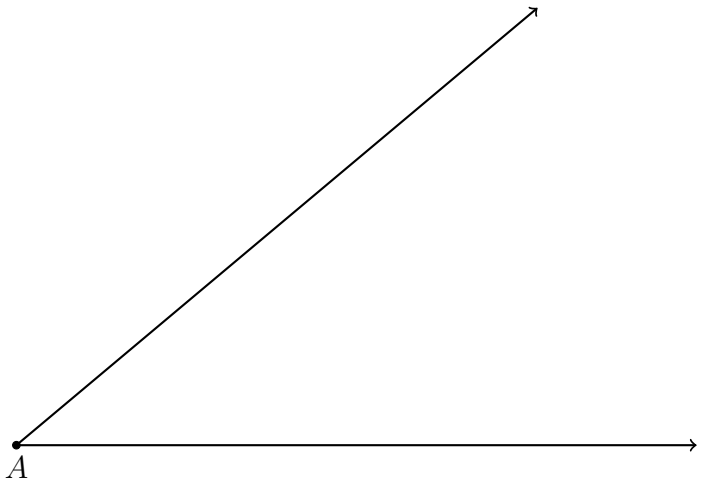
   (c) Check your answer.

2. Given an angle with vertex A.

   (a) Using a protractor, measure angle A in degrees. $m\angle A =$

   (b) Draw a ray $\overrightarrow{AB}$ that exactly bisects $\angle A$.

   (c) What is the measure of each half angle?



Angle measures using the Babylonian system of $360°$ in a circle

A full rotation is $360°$ (a full "turn").

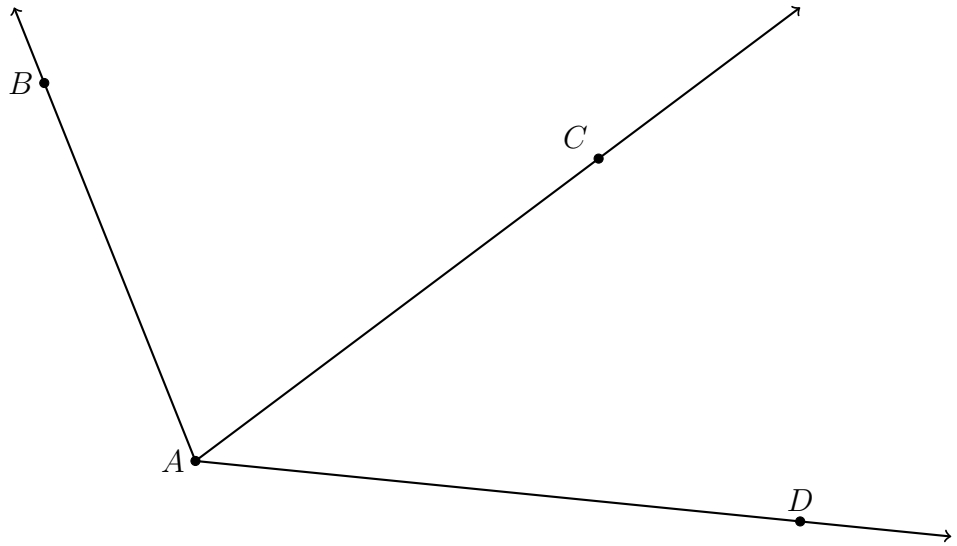
A half turn (straight line) is $180°$.

$90°$ is a quarter turn or a *right* angle.

Acute angles measure less than $90°$. *Obtuse* angles measure more than $90°$.

Adjacent angles ("next to" each other) share a common ray and are external to each other.

3. Write down the name of the *three* angles shown in the diagram below and their angle measures, using your protractor.



(a) _____

(b) _____

(c) _____

(d) What do you notice about the angle measures?

4. In your notebook, draw an angle that measures $55°$

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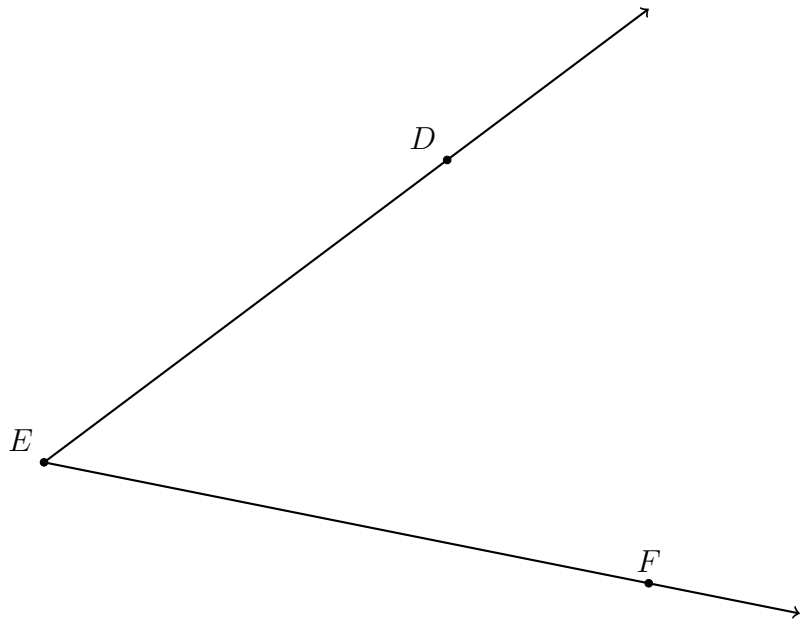
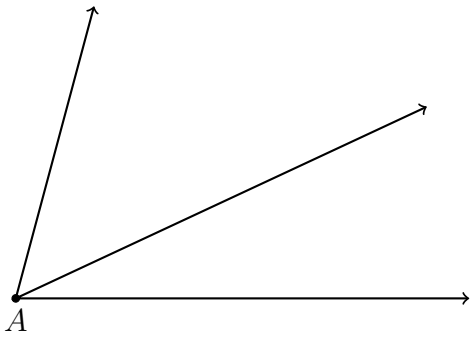
5. (a) Write down the name of the angle shown in the diagram below using proper geometric notation.
   (b) Find the measure of the angle in degrees with a protractor.
   (c) Is it an acute, obtuse, or right angle?




A

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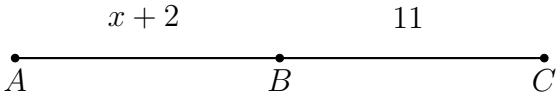
6. Given point B is the midpoint of $\overline{AC}$, with $AB = x + 2$, $BC = 11$.

   First write and equation representing the situation, then find x.



7. Find the value of each expression.

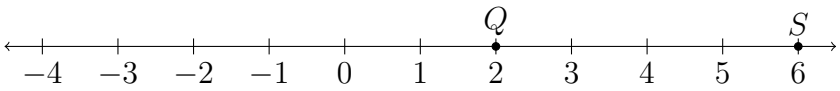
   (a) $|11| =$

   (b) $|-7| =$

   (c) $|-4.75| =$

   (d) $|10 - 7| =$

8. Given $\overleftrightarrow{QS}$ as shown on the number line.

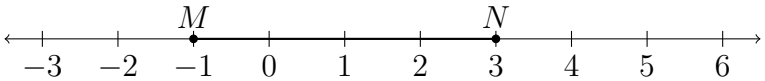


   (a) In the given number line units, what is the distance between Q and S?

   $QS =$

   (b) Mark the point R, the midpoint of $\overline{QS}$.

9. Given $\overline{MN}$ with $M(-1)$ and $N(3)$, as shown on the number line.



   What is the length of the segment $\overline{MN}$? Show your work as an equation.