

1.4 Angles and Their Measurements

Objective - use angle postulates, be able to classify angles as acute, right, obtuse, or straight

Warm-up: 1.4 lesson opener

Vocab

Angle - consists of two different rays that have the same initial point

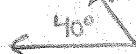
↖ ↗ side, annotation: $\angle A$

Vertex - Initial point of the vertex

Congruent Angles - angles that have the same measurement

Interior / Exterior Angles

Acute \angle - an angle with a measure between 0° and 90°



Right \angle - an angle with a measure exactly 90°



Obtuse \angle - an angle with a measure between 90° and 180°

Straight \angle - an angle with a measure exactly 180°

Adjacent \angle 's - two angles that share a common vertex and side but no common interior points



Naming Angles

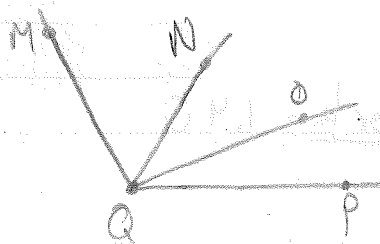
- when naming angles you must either use three points with the vertex in the middle or just use the vertex when acceptable

ex



Name three different angles:

- $\angle ABC$, $\angle CBD$, $\angle ABD$



Name six different angles

Protractor demonstration

Draw an obtuse angle and give me it's measurement
 acute,
 right
 straight

Classifying Angles in a coordinate plane

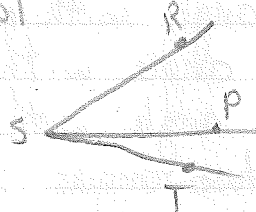
Plot points $A(-4,2)$ $B(-1,-1)$ $C(2,2)$ $D(4,-1)$ $E(2,-4)$

Find the measurement and label acute, right, obtuse, straight

Angle Addition Postulate

If P is in the interior of $\angle RST$, then:

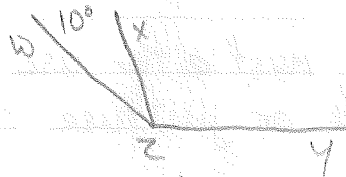
$$m\angle RSP + m\angle PST = m\angle RST$$



Example

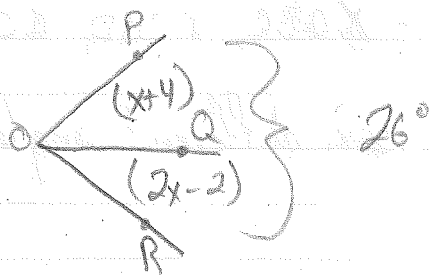


What is $m\angle ABC$?



$m\angle WXY = 133^\circ$, what is the $m\angle XZY$?

Closure Name 3 types of angles. What do they mean?
 What is a vertex?



Homework - 1.4a