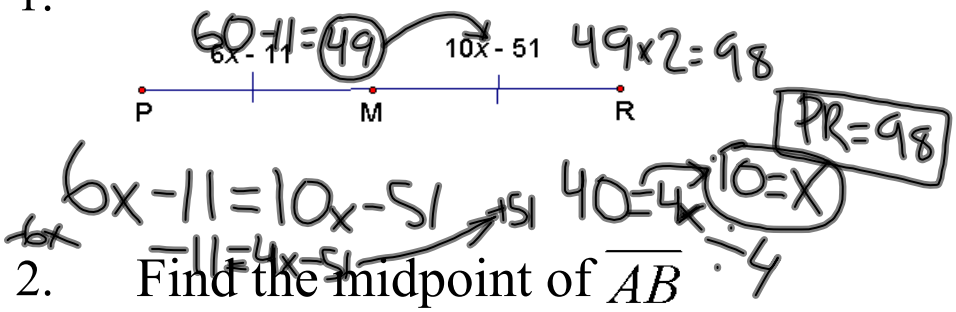
Warm Up

1. Find PR



2. Find the midpoint of $\overline{AB}$

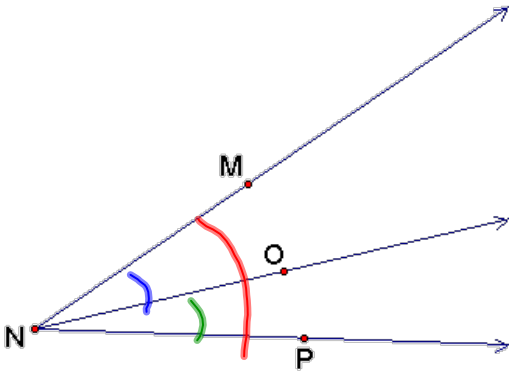
$A(-8, -7)$ $B(11, 5)$

3. Find the length of $\overline{AB}$

$A(1, 2)$ $B(5, 4)$

1-4 Measure and Classify Angles

Ex. 1 Name three angles in the diagram.

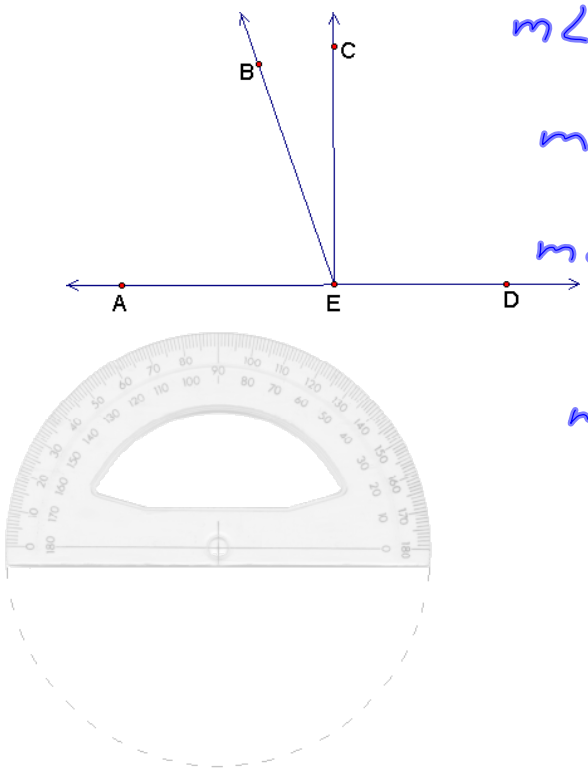


∠MNO

∠ONP

∠MNP

Ex. 2 Find the measure of each angle, and classify each.



$m\angle AEB = 72^\circ$ acute

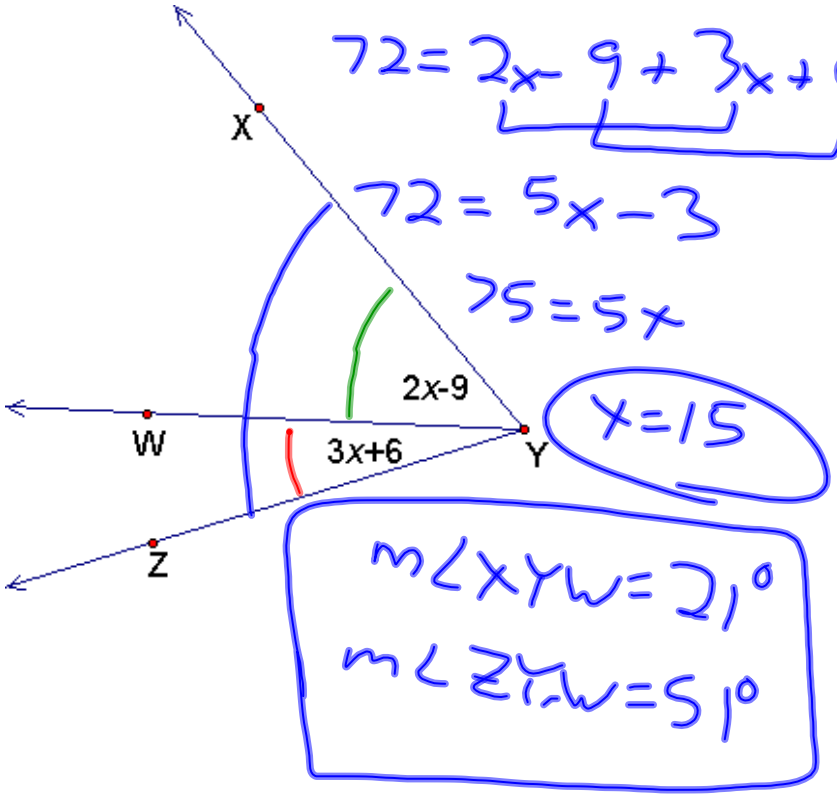
$m\angle CED = 90^\circ$ right

$m\angle BEC = 18^\circ$ acute

$m\angle BED = 108^\circ$ obtuse

$m\angle AED = 180^\circ$ straight angle

Ex 3 If $m\angle XYZ = 72°$ find $m\angle XYW$ and $m\angle ZYW$



$72 = 2x - 9 + 3x + 6$

$72 = 5x - 3$

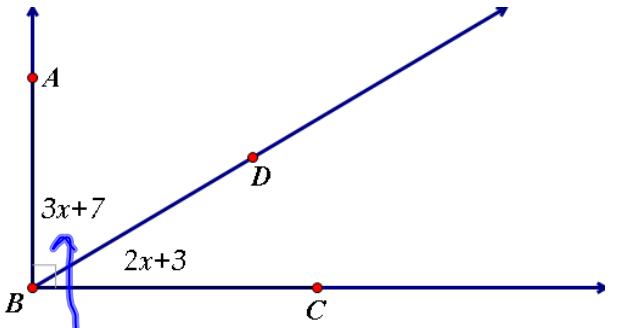
$75 = 5x$

$x = 15$

$m\angle XYW = 21^\circ$

$m\angle ZYW = 51^\circ$

Ex. 4 Find the measure of $\angle ABD = 55^\circ$



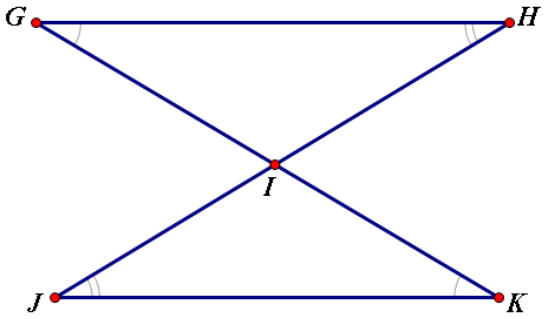
$90 = 3x+7+2x+3$

$5x+10 = 90$

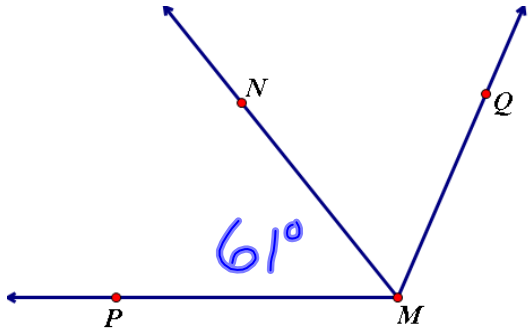
$5x = 80$

$x = 16$

Ex. 5 Identify all pairs of congruent angles.



Ex. 6 In the diagram, $\overrightarrow{MN}$ bisects $\angle PMQ$ and $m\angle PMQ = 122^{o}$. Find $m\angle PMN$



Ex. 7 Make up a problem similar to #3 and #4 and solve your problem.