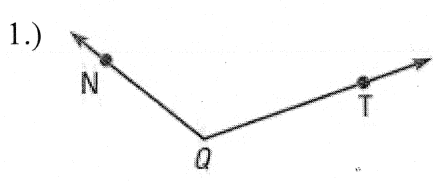


Lesson 1.4 Worksheet

Name: Key

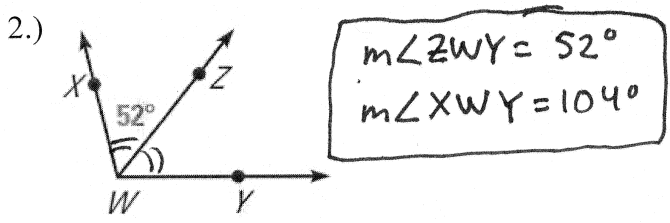
Write three names for the angle pictured below. Then name the vertex and sides of the angle.



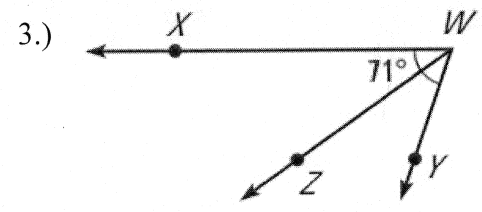
1.) Name 1: $\angle NQT$
 Name 2: $\angle TQN$
 Name 3: $\angle Q$

Vertex: Point Q
 Side 1: \overrightarrow{QN}
 Side 2: \overrightarrow{QT}

Given that \overline{WZ} bisects $\angle XWY$, find the two angle measures not given in the diagram (There are 3 total!).



$m\angle ZWY = 52^\circ$
 $m\angle XWY = 104^\circ$

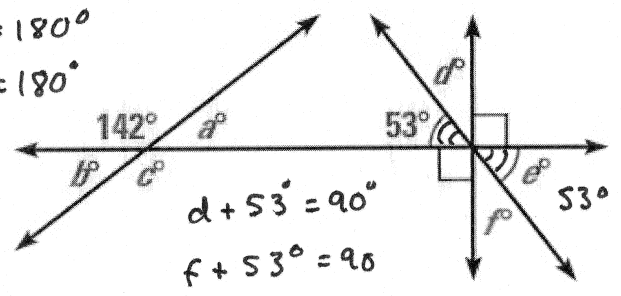


$m\angle ZWY = 71^\circ$
 $m\angle XWY = 142^\circ$

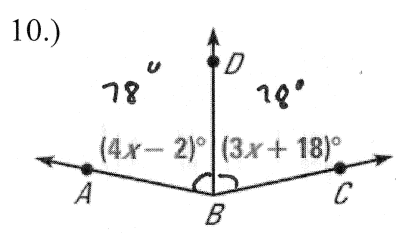
In exercises 4-9, find the indicated angle measure using the picture on the right. $m\angle e = 53^\circ$ (marked)

- 4.) $a = \underline{38^\circ}$
- 5.) $b = \underline{38^\circ}$
- 6.) $c = \underline{142^\circ}$
- 7.) $d = \underline{37^\circ}$
- 8.) $e = \underline{53^\circ}$
- 9.) $f = \underline{37^\circ}$

$a + 142 = 180$
 $b + 142 = 180$
 $c + 38 = 180$

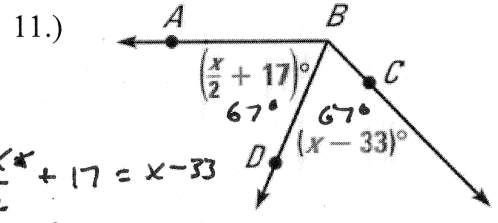


In each diagram below, \overline{BD} bisects $\angle ABC$. Find the measure of $m\angle ABC$.



$4x - 2 = 3x + 18$
 $x = 20$

$m\angle ABC = \underline{156^\circ}$



$\frac{x}{2} + 17 = x - 33$
 $\frac{x}{2} = x - 50$
 $x = 2x - 100$
 $100 = x$

$m\angle ABC = \underline{134^\circ}$