Examples

1. **Identifying Angles** Identify the acute angles, obtuse angles, and straight angle in the figure.
   
   - acute angles: _,_ and _,_
   - obtuse angles: _,_ and _,_
   - straight angle: _,_

2. **Finding Angle Measures** Find the measures of \(\angle 1\), \(\angle 2\), and \(\angle 4\), for \(m\angle 3 = 32^\circ\).
   
   \[
   \begin{align*}
   m\angle 2 + 32^\circ &= \underline{\_ \_} \quad \rightarrow \quad \angle 2 \text{ and } \angle 3 \text{ are } \underline{\_ \_ \_}.
   
   m\angle 2 + 32^\circ - 32^\circ &= 180^\circ - 32^\circ \quad \rightarrow \quad \text{Subtract } 32^\circ \text{ from each side.}
   
   m\angle 2 &= \underline{\_ \_} \quad \rightarrow \quad \text{Simplify.}
   
   m\angle 1 &= \underline{\_ \_} \quad \rightarrow \quad \angle 1 \text{ and } \angle 3 \text{ are } \underline{\_ \_ \_} \text{ angles.}
   
   m\angle 4 &= \underline{\_ \_} \quad \rightarrow \quad \angle 2 \text{ and } \angle 4 \text{ are } \underline{\_ \_ \_} \text{ angles.}
   \end{align*}
\]

Quick Check

1. Classify \(\angle AFE\) as acute, right, obtuse, or straight.

   \[
   \begin{array}{c}
   A \\
   \hline
   B \\
   \hline
   F \\
   \hline
   C \\
   \hline
   D
   \end{array}
   \]

2. Find the measure of the complement of \(\angle 3\) in Example 2.

3. In the diagram at the right, \(m\angle 8 = 72^\circ\). Find the measures of \(\angle 5\), \(\angle 6\), and \(\angle 7\).