Lines, Triangles and Angles
Quiz Study Guide

Angles:

- You should be able to:
  - Classify angles as acute, obtuse, right, adjacent, vertical, supplementary or complimentary and use all names that apply

Ex:

\[ \angle ABC = \text{________} \]
\[ \angle ABD = \text{________} \]
\[ \angle CBD = \text{________} \]
\[ \angle ABC \text{ and } \angle CBD = \text{________} \]

Ex:

\[ \angle FEG = \text{________} \]
\[ \angle FEH = \text{________} \]
\[ \angle HEG = \text{________} \]
\[ \angle FEH \text{ and } \angle HEG = \text{________} \]

Ex:

\[ \angle IJL = \text{________} \]
\[ \angle IJK = \text{________} \]
\[ \angle LJK = \text{________} \]
\[ \angle LJI \text{ and } \angle KJL = \text{________} \text{ and } \text{________} \]

- Identify the vertices of the previous three examples.
  1) _______
  2) _______
  3) _______
You should be able to use angle relationships to find missing angle measures.

Ex: The measure of angle 1 is 30°. Angles 1 and 2 are complimentary. Find the measure of angle 2.

Ex: The measure of angle 1 is 125°. Angles 1 and 2 are supplementary. Find the measure of angle 2.

Ex: Angles 1 and 2 are vertical. The measure of angle 1 is 45°. Find the measure of angle 2.

Use the given information to find the value of \( x \).

Ex: 

\[
\begin{align*}
3x & \quad x + 20 \\
\end{align*}
\]

Ex: 

\[
\begin{align*}
5x \\
\end{align*}
\]

Ex: 

\[
\begin{align*}
170 - x & \quad x - 30 \\
\end{align*}
\]
Angles formed by a Transversal:

- You should be able to identify angle pairs formed by a transversal intersecting parallel lines and use their relationships to find missing angle measures.

Ex: Which two lines are parallel? ______________
Ex: Which line is the transversal? ___________

Ex: Give one pair of corresponding angles: __________
Ex: Give one pair of vertical angles: __________

Ex: Give one pair of alternate interior angles: __________
Ex: Give one pair of supplementary angles: __________

Ex: Give one pair of alternate exterior angles: __________

Find the missing angle measures. Give the reason you know.

Ex: Find m∠1 if m∠2 is 50°.
Measure: __________
Reason: ________________

Ex: Find m∠8 if m∠1 is 140°.
Measure: __________
Reason: ________________

Ex: Find m∠6 if the m∠4 is 30°.
Measure: __________
Reason: ________________

Ex: Find m∠2 if m∠6 is 60°.
Measure: __________
Reason: ________________

Ex: Find m∠3 if the m∠1 is 92°.
Measure: __________
Reason: ________________
**Triangles:**

- You should be able to classify a triangle by its sides and angles.

- You should be able to find missing measures in triangles.

**Ex:** A triangle with no equal sides is called: ______________

**Ex:** A triangle with all equal sides is called: ______________

**Ex:** A triangle with 2 equal sides is called: _______________

**Ex:** A triangle with 1 __________ angle is called: ______________

**Ex:** A triangle with 1 __________ angle is called: ___________

**Ex:** A triangle with 3 __________ angles is called: ______________

**Ex:** The number of sides equal in a triangle is also the number of __________ that are equal. For example, if a triangle is isosceles, then it would be have _______ equal angles.

**Find the missing angle measure:**

**Ex:**

![Diagram 1](image1)

**Ex:**

![Diagram 2](image2)