Types of Lines

- Lines are identified by _______________________
  This line can be Named ______________________

- Segments are identified by ______________________
  This segment can be Named ______________________

- Rays are identified by ______________________
  This Ray can be Named ______________________

All types of lines SHOULD only be named ___________________________________________

GeoA - Types of angles

Naming angles Properly

________    ________    ________

All angles must be Named with __________________
___________________________________________
Video - Reading Angles

Video - Section 1 Vocab

- Adjacent
- Non Adjacent
- Vertical
- Complementary
- Supplementary (linear pair)
Naming these pictures

Video - simple math of lines and angles

Multiple Choice In Exercises 3–6, use the diagram below where $MQ = 30$, $MN = 5$, $MN = NO$ and $OP = PQ$.

3. Find the length of $OQ$.
   - A: 5
   - B: 10
   - C: 15
   - D: 20
   - E: 25

4. Find the length of $PQ$.
   - A: 5
   - B: 10
   - C: 15
   - D: 20
   - E: 25

5. Find the length of $NO$.
   - A: 5
   - B: 10
   - C: 15
   - D: 20
   - E: 25

6. Find the length of $NP$.
   - A: 5
   - B: 10
   - C: 15
   - D: 20
   - E: 25
**Multiple Choice** Find the length of $\overline{AC}$ if $AB$ is 6, $BC$ is 10, and $B$ is between $A$ and $C$.

- A 4
- B 16
- C -4
- D 60
- E 6

**Multiple Choice** Find $m\angle WYZ$.

- A 5°
- B 90°
- C 85°
- D 105°
- E 175°

What do letters and symbols tell us?

Next ------------> F.A. - Geo Essentials <--------------- Next
Video - algebra of lines and angles

**Multiple Choice** Find the value of $x$.

\[(3x + 2)^\circ \quad (4x - 5)^\circ\]

- **A** 13.3
- **B** 7
- **C** 14
- **D** 26
- **E** 25

Identify relationship ________________
setup and solve

**Multiple Choice** In the diagram, $\overline{WX} \equiv \overline{YZ}$.

Find $x$.

\[
\begin{align*}
5x + 1 & = 9x - 3 \\
11 & = 12
\end{align*}
\]

- **A** 11
- **B** 2
- **C** 15
- **D** 4
- **E** 26

Identify relationship ________________
setup and solve

**Multiple Choice** Solve for $x$ in the diagram.

\[
\begin{align*}
(3x + 18)^\circ & = (5x + 2)^\circ \\
2(y + 6)^\circ & = (3x + 18)^\circ
\end{align*}
\]

- **A** 20
- **B** 45
- **C** 51
- **D** 78
- **E** 102

Identify relationship ________________
setup and solve

$\angle 3$ and $\angle 4$ are complementary angles. If $m\angle 3 = (x + 24)^\circ$ and $m\angle 4 = (x)^\circ$. Find $x$.

Identify relationship ________________
setup and solve

**Given** $m\angle ADC = 118^\circ$, find $x$.

Identify relationship ________________
setup and solve
Video - READ the Directions

\( \angle 1 \) and \( \angle 2 \) are complementary. \( m\angle 1 = 3x + 5 \), \( m\angle 2 = 2x \). Find \( m\angle 1 \).

Identify relationship ________________
what do they want ___________
How do I find it? ________________
setup, solve and find

Given \( m\angle 1 = 9x + 24 \), \( m\angle 2 = 3x + 12 \). Find \( m\angle 2 \).

Identify relationship ________________
what do they want ___________
How do I find it? ________________
setup, solve and find

\( m\angle ABD = (2y - 3)^\circ \), \( m\angle DBC = (y + 12)^\circ \)

find \( m\angle ABC = \) ______

Identify relationship ________________
what do they want ___________
How do I find it? ________________
setup, solve and find

NEXT F.A. - Lines, angles, and algebra