Warmup 2/(# of scoring plays in yesterday's Super Bowl)

Created by Mr. Lischwe

Make sure you have a SMALL whiteboard, marker, and eraser inside your desk. No big whiteboards.

Solve these <u>analogies</u>. Fill in the blanks so that both pairs of items have the same relationship.

1. **Basketball: orange   ::   golf ball:** <u>white</u>
2. **Blake Shelton: country   ::   Drake:** <u>hip-hop</u>
3. **Solid:melt   ::   liquid:** <u>evaporate</u>
4. **Skeptic:belief   ::   Liar:** <u>truth</u>
5. **16:4   ::   36:** <u>6</u> or 9 or 24
6. **Addition:multiplication   ::   multiplication:** <u>exponents</u>

$7 + 7 + 7 + 7 \rightarrow 7 \cdot 4$ $7 \cdot 7 \cdot 7 \cdot 7 \rightarrow 7^4$

THIS WEEK...

- ## No food in class (even if you ask)

- Too many wrappers are being left in desks, crumbs on the floor, etc.

Exponent & Scientific Notation Tests...

- Are graded

- We will go over them TOMORROW (too many people haven't taken it yet)

- **By the way, Exponent QUIZ retake deadline is on Friday!!!**

PLAN FOR THIS WEEK:

- Today: Basics of Angles
- Tuesday: Angles formed by Parallel Lines
- Wednesday: Angles of Triangles
- Thursday: Review
- Friday: Angles Quiz!!!

Textbook Volume 2!!!

- Keep your volume 1 somewhere handy – we'll go back to it later.

- Anytime I tell you to bring your textbook now, it should be **VOLUME 2.**

Table of Contents (2nd Semester)

Angle Basics

Objectives:

- Name angles

- Estimate angle measures

- Measure angles with a protractor

- Classify angles

- Find complementary and supplementary angles

- Find missing angle measures in an "X"
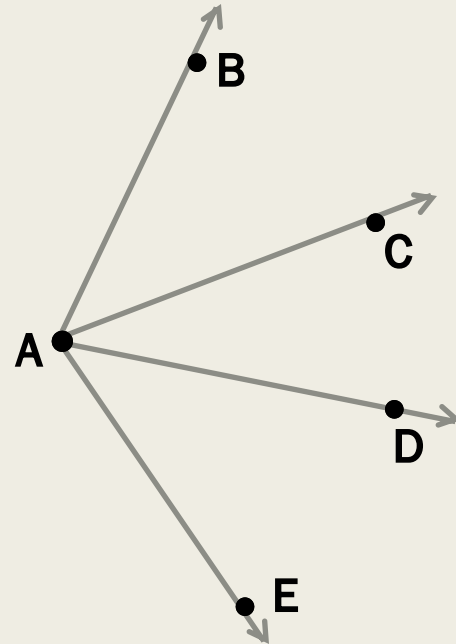
Brainstorm:

■ What do we remember about angles???

Parts of an angle

Sides
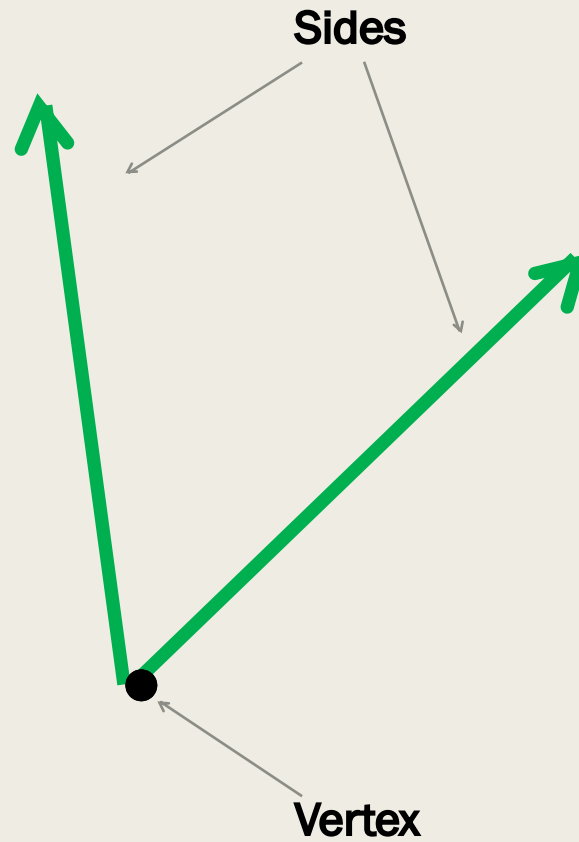
Vertex

Quick Question…

- How many angles are in this picture?
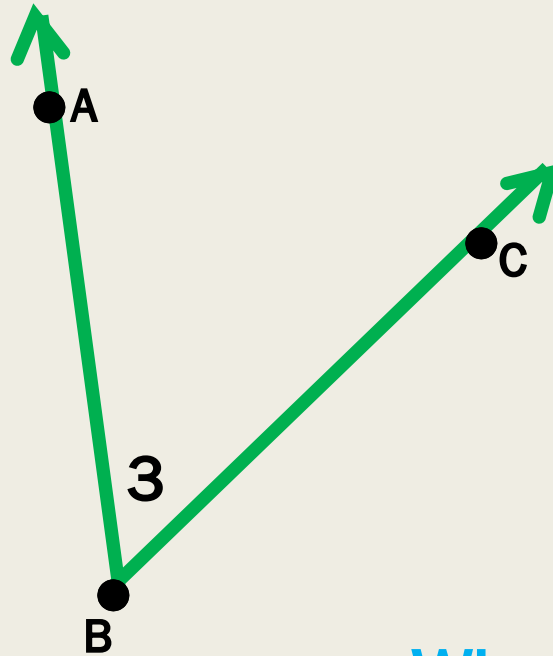
- How would I **name** each one?

6

∠ BAC
∠ CAD
∠ DAE
∠ BAD
∠ CAE
∠ BAE

4 ways to name this angle...

A

C

3

B

∠ABC

∠CBA

∠B

∠3

NAMING ANGLES

- Use 3 letters – the middle letter MUST be the vertex
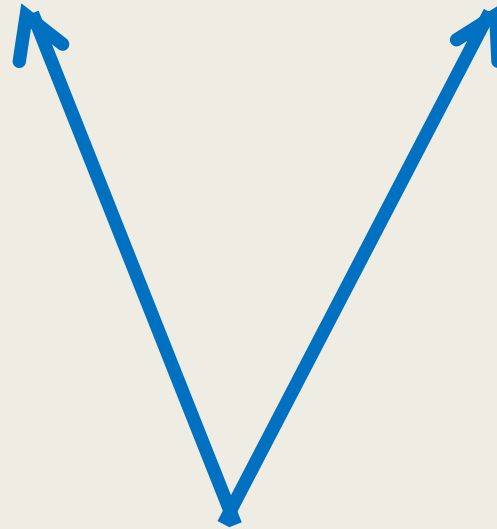- May use 1 letter ONLY IF there's only one angle at that vertex

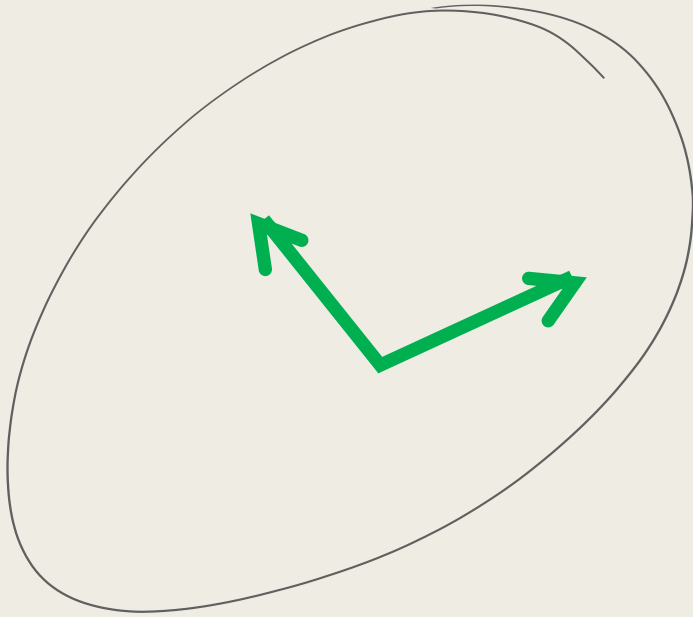**When you name an angle, trace the 3 letters in order like a letter "V"!**

Which angle is has a greater measure?

4 "Categories" of angles

- <u>**Acute**</u>: between 0 and 90 degrees
- <u>**Right:**</u> exactly 90 degrees
- <u>**Obtuse:**</u> between 90 and 180 degrees
- <u>**Straight:**</u> exactly 180 degrees

- **(If I were you, I would put a picture representing each type too)**

- By the way, an angle <u>over</u> 180 degrees is called a "reflex" angle
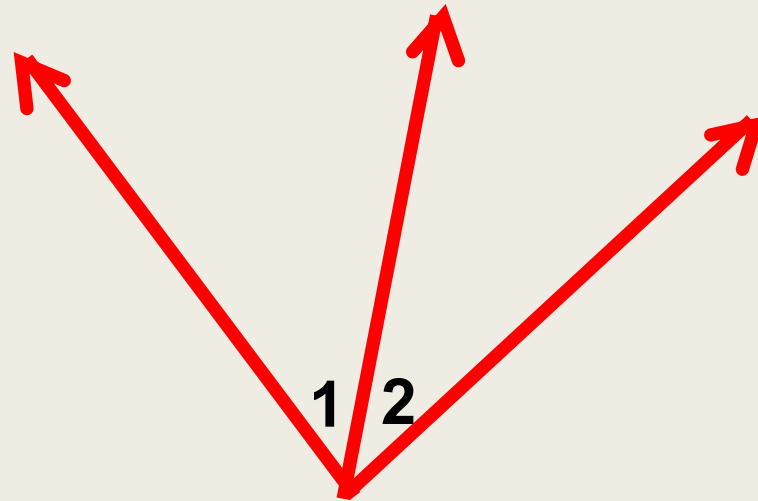
Classify Each Angle:
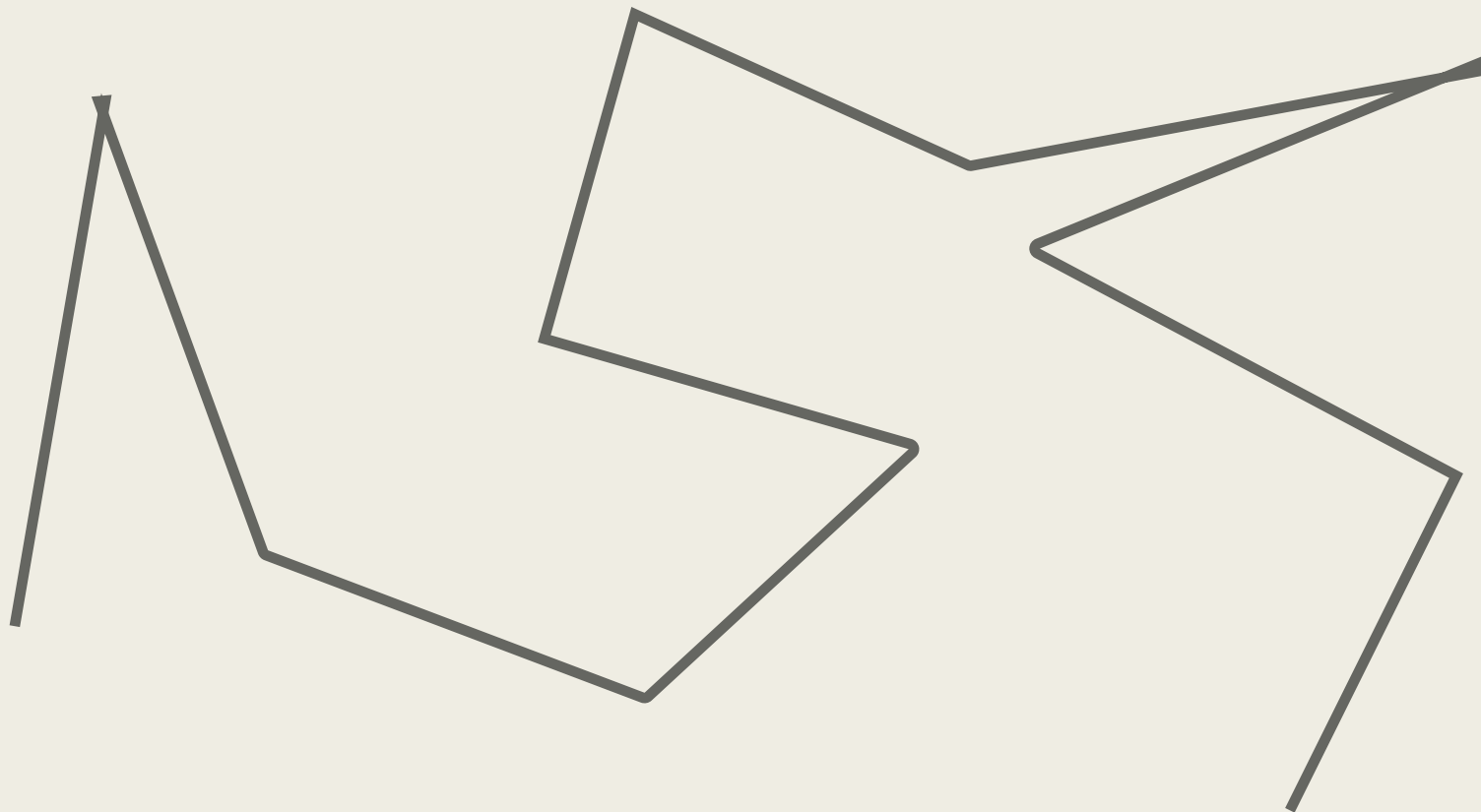
IMPORTANT GEOMETRY VOCAB

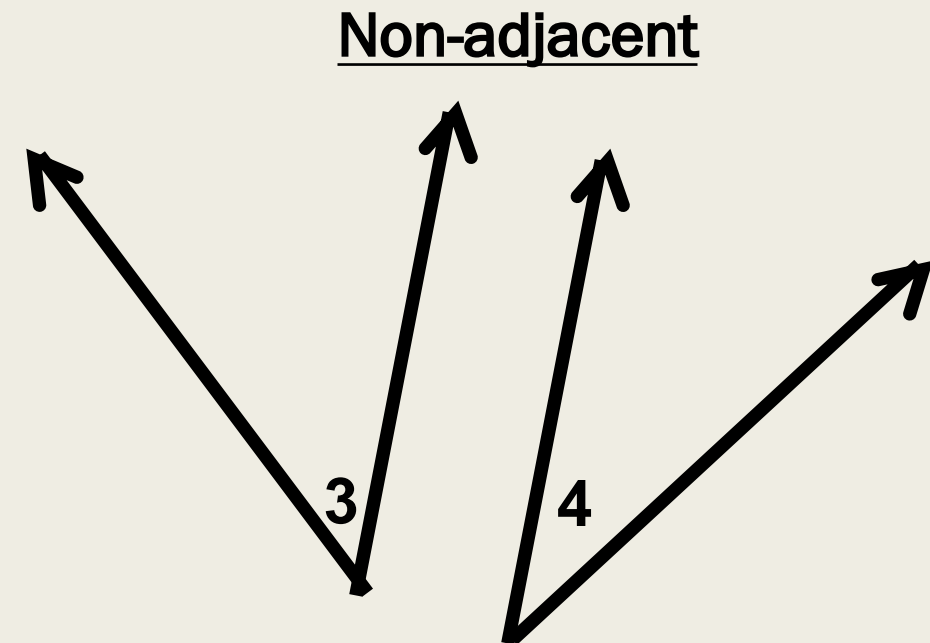- Two angles that have the same measure are called
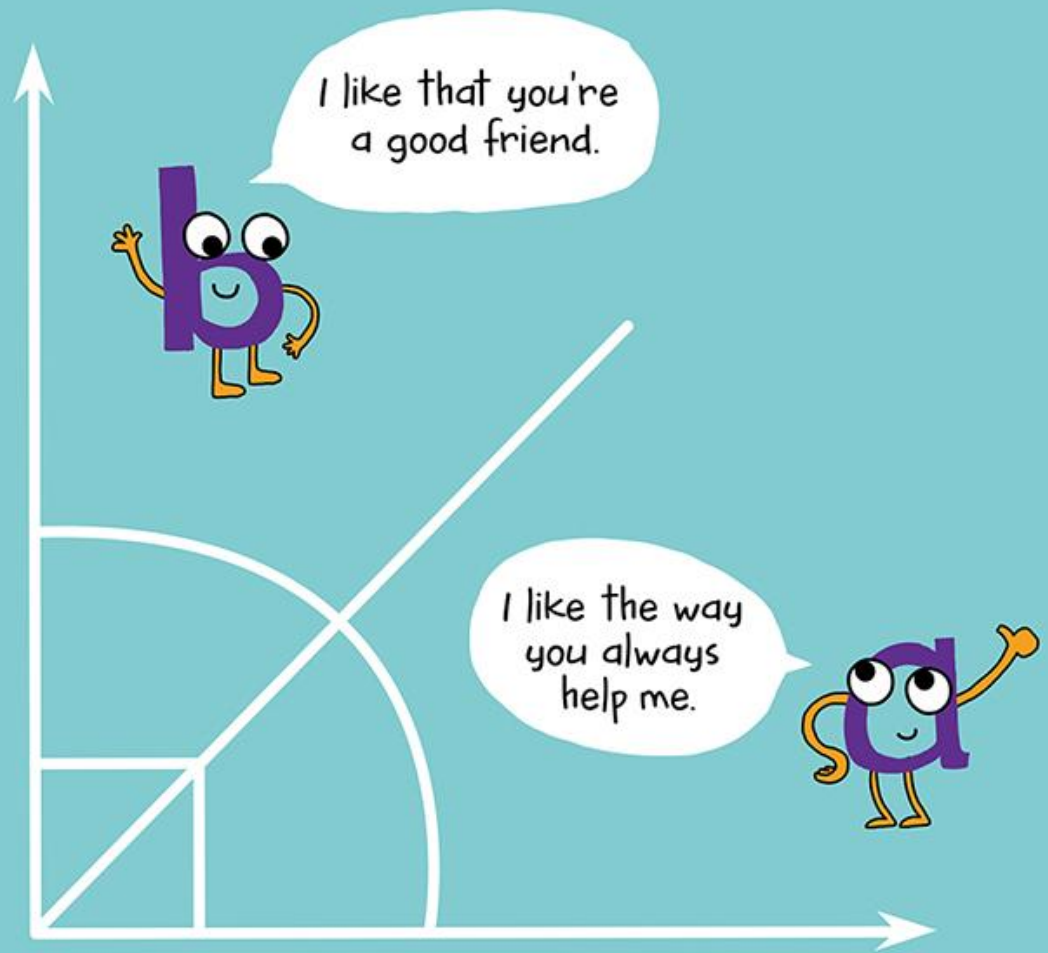
CONGRUENT.

- **Symbol:** ≅

- **<u>Adjacent Angles</u>: Share a side and vertex**

<u>Non-adjacent</u>

1 2

3 **4**

- In the diagram, angles 1 and 2 are adjacent.

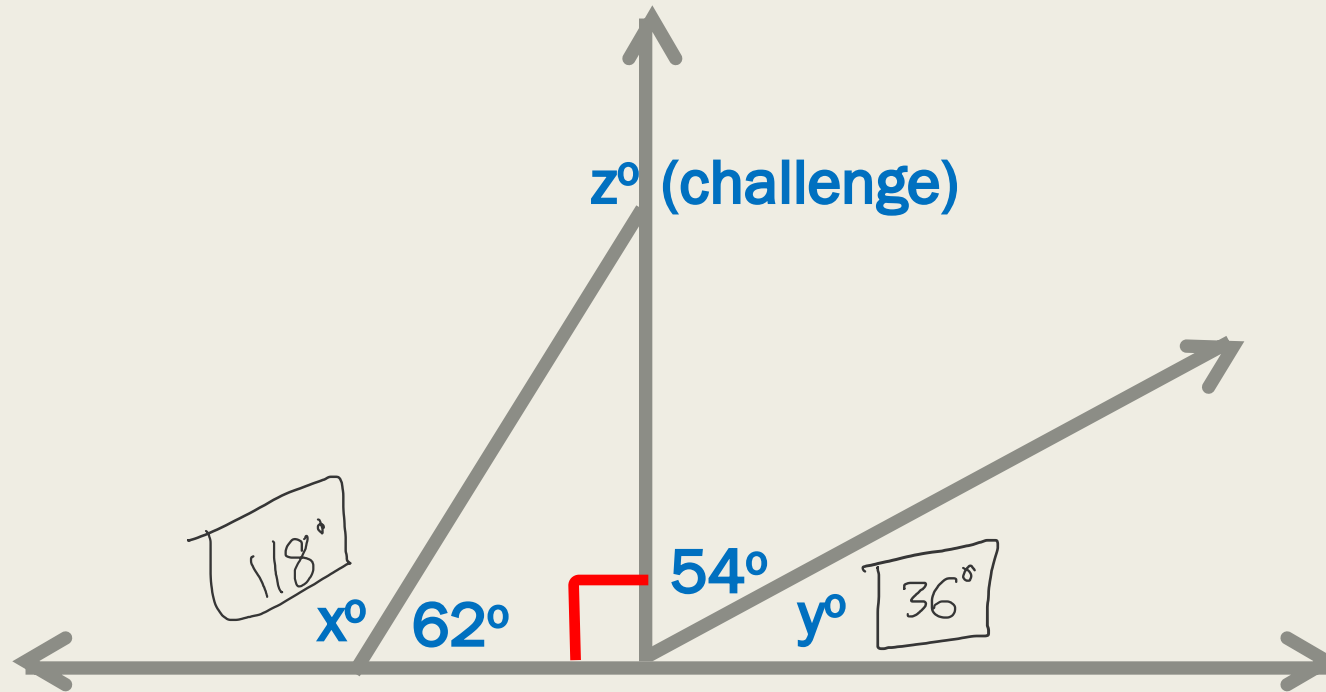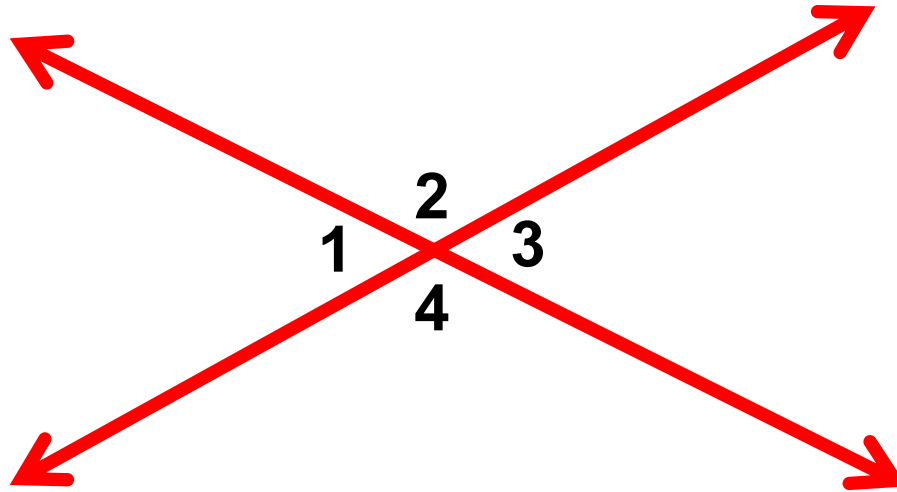# Complementary Angles

- <u>Complementary Angles</u> are two angles whose measures add up to 90º.

- <u>Supplementary Angles</u> are two angles whose measures add up to 180º.

- (They don't have to be adjacent!!!)

- What is the **complement** of a 50° angle? 40°
- What is the **supplement** of a 50° angle? 130°
- What is the **complement** of a 27° angle? 63°
- What is the **supplement** of a 102° angle? 78°
- What is the **supplement** of a 155.5° angle? 24.5°
- What is the **complement** of a 45° angle? 45°
- What is the **complement** of a 95° angle? N/A
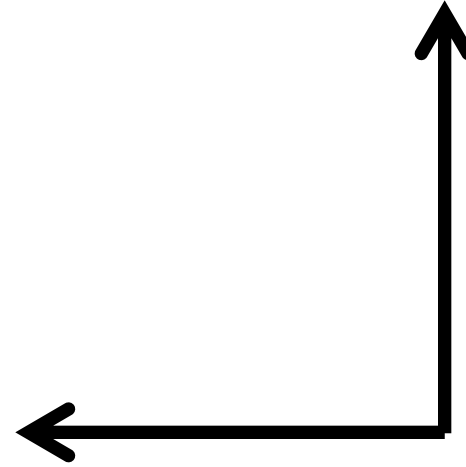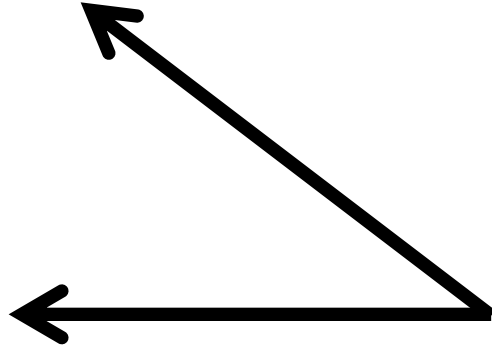
Find the missing angle measures:

- **<u>Vertical Angles</u>**: Angles across from each other at the intersection of two straight lines.
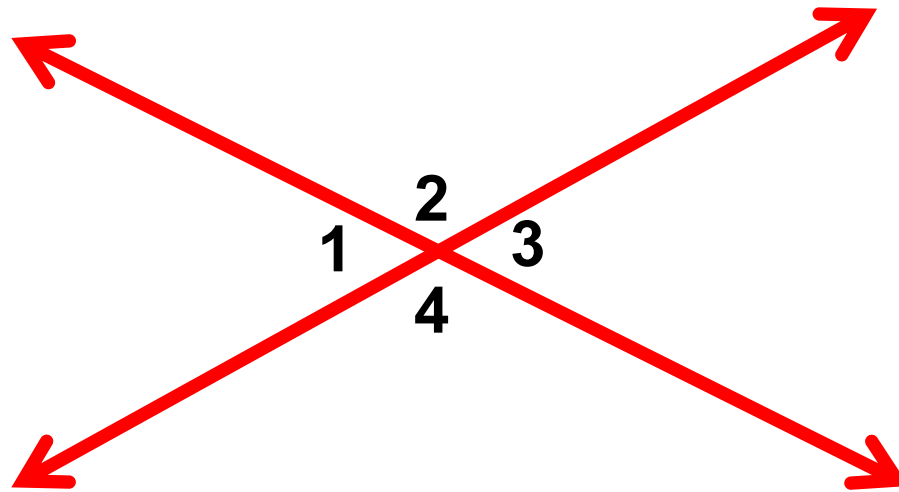 - They are **always** congruent!!!

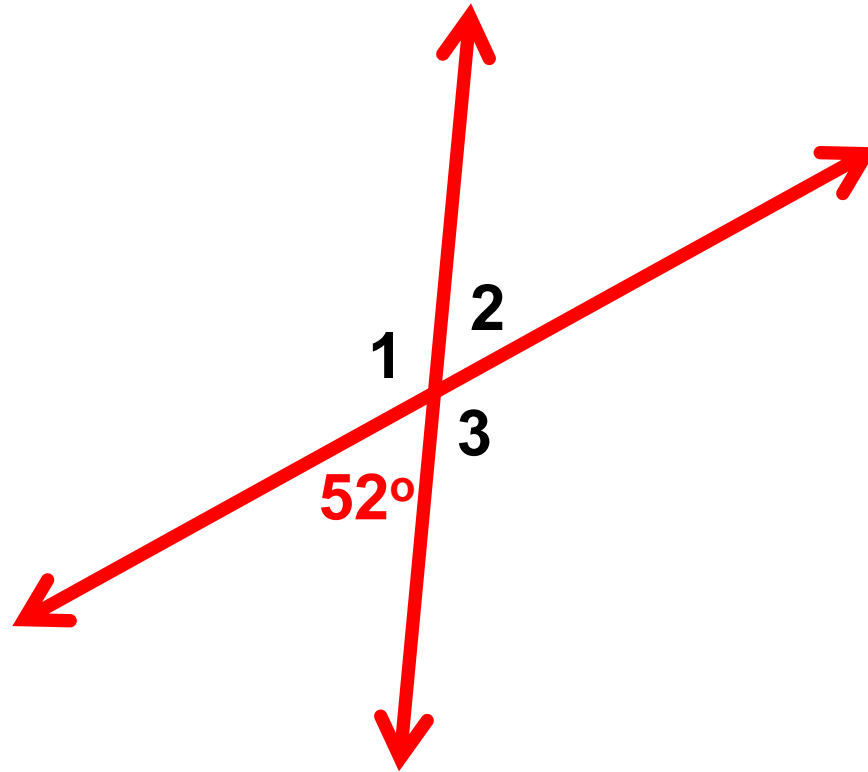- $\angle 1 \cong \angle 3$ and $\angle 2 \cong \angle 4$

Straight Angles

- Two angles that form a straight line will always be supplementary!
- $m\angle 1 + m\angle 2 = 180^o$

Example

- Find the other three angle measures.

2
1
3
52°

$m\angle 1 = 128°$

$m\angle 2 = 52°$

$m\angle 3 = 128°$

HOMEWORK

▶ Angle Basics Worksheet