

# Eureka Math

## 4th Grade Module 4 Lesson 2

At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

Directions for customizing presentations are available on the next slide.



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# Icons



Read, Draw, Write



Learning Target



Personal White Board



Problem Set



Manipulatives Needed



Fluency



Think Pair Share



Whole Class



Individual



Partner



Small Group



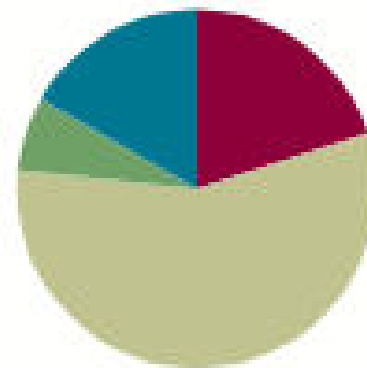
Small Group Time

## Lesson 2

**Objective:** Use right angles to determine whether angles are equal to, greater than, or less than right angles. Draw right, obtuse, and acute angles.

### Suggested Lesson Structure

■ Fluency Practice	(12 minutes)
■ Application Problem	(4 minutes)
■ Concept Development	(34 minutes)
■ Student Debrief	(10 minutes)
<b>Total Time</b>	<b>(60 minutes)</b>





Use right angles to determine whether angles are equal to, greater than, or less than right angles. Draw right, obtuse, and acute angles.



# Multiply

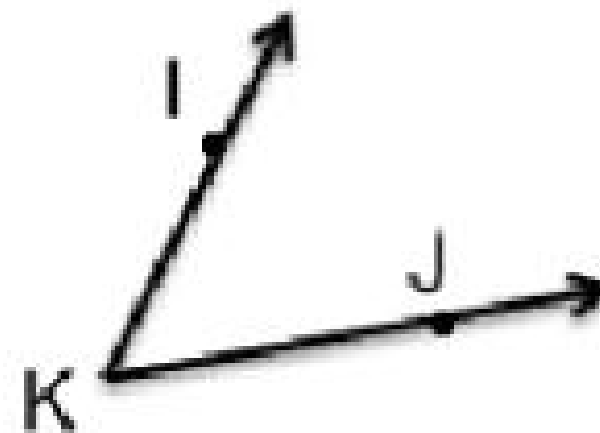
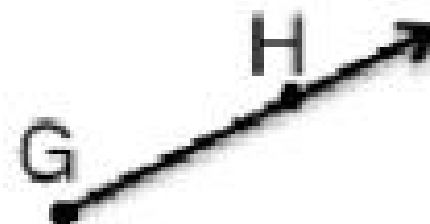
$$322 \times 7 = \underline{\hspace{2cm}}$$

$$5,132 \times 3 = \underline{\hspace{2cm}}$$

$$4,312 \times 4 = \underline{\hspace{2cm}}$$



# Identify figures





# Application Problem

1. Figure 1 has three points. Connect points  $A$ ,  $B$ , and  $C$  with as many line segments as possible.
2. Figure 2 has four points. Connect points  $D$ ,  $E$ ,  $F$ , and  $G$  with as many line segments as possible.

Figure 1

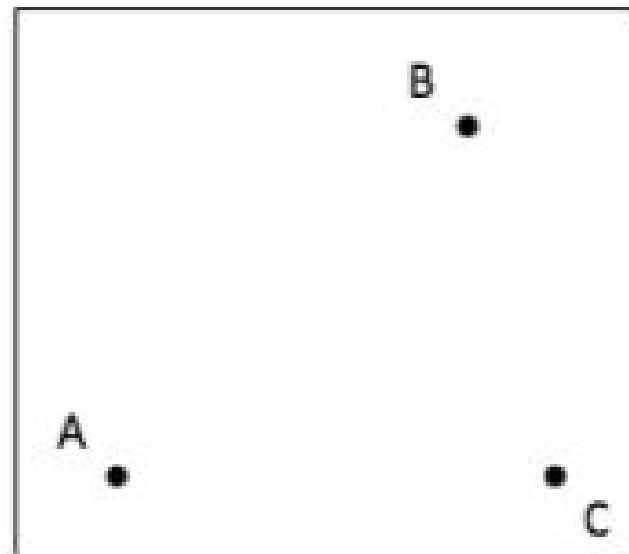
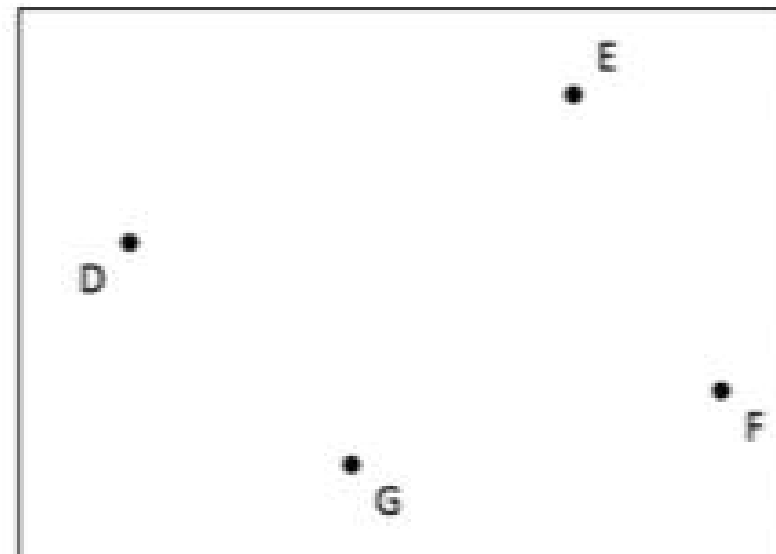


Figure 2





# Create right angle template

- Follow direction in manual page 4.A.19





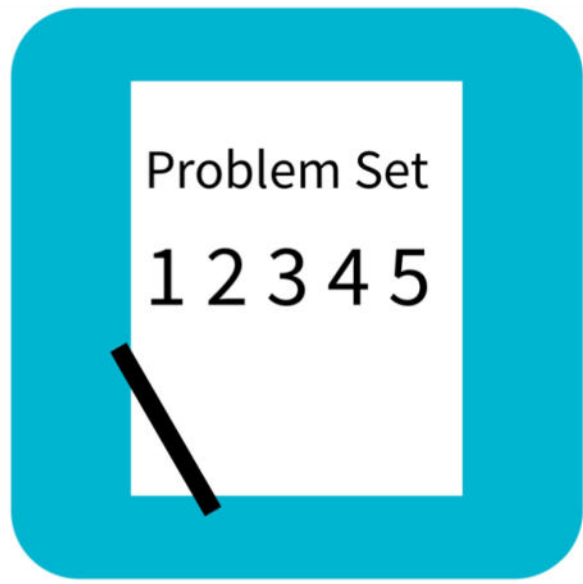
# Greater, Less, or equal to 90 degree

Use your 90 degree template and the angles template to decide if they are greater, less, or equal to 90 degrees.



# Draw right, acute, and obtuse angles

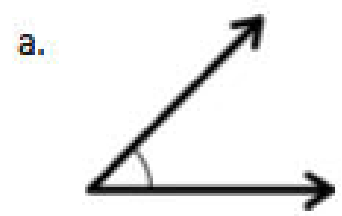
- Use your straightedge and draw one RAY.
- Use your right angle template as a guide and draw a second ray to create a right angle ABC.
- Draw another ray using your straightedge. Using your template draw an angle that is less than 90 degrees and label it XYZ.
- What do you notice between the two angles?
- We call an angle less than 90 degrees an ACUTE angle.
- Finally, draw another angle greater than 90 degrees.
- We call this type of angle, an OBTUSE angle.



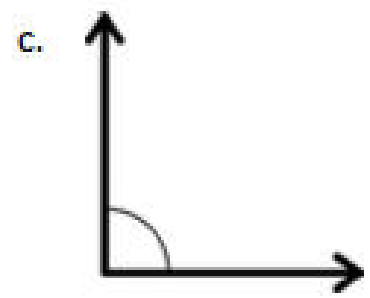
# Problem Set

Name \_\_\_\_\_ Date \_\_\_\_\_

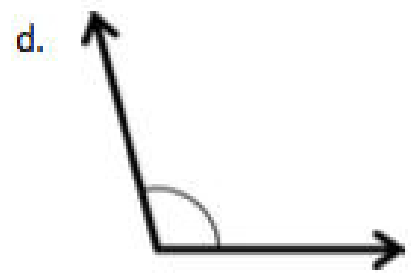
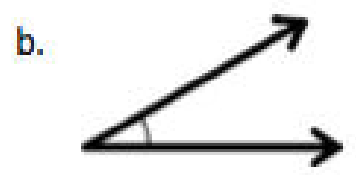
1. Use the right angle template that you made in class to determine if each of the following angles is greater than, less than, or equal to a right angle. Label each as *greater than*, *less than*, or *equal to*, and then connect each angle to the correct label of acute, right, or obtuse. The first one has been completed for you.



*Less than*



• Acute •





# Debrief

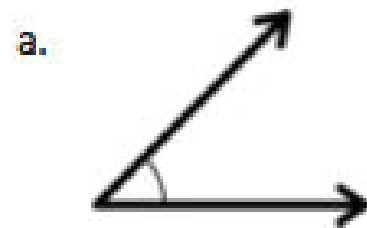
- Problems 1(c) and 1(f) are both **right angles**. Describe their position. Does the orientation of an angle determine whether it is right, acute, or obtuse?
- In Problem 3(a), each ray shared the same endpoint. The shared endpoint is called a **vertex**. Label the points on your angles in Problem 3. Identify the vertex in Problems 3(b) and 3(c) with your partner.
- When we first found **obtuse angles**, we said that all of our examples were angles greater than a right angle, but then you learned a **straight angle** is a straight line. How did your understanding of the term *obtuse angle* grow? How did that understanding help you draw your angle for Problem 3(c)? What is the difference between a straight angle and a line?

# Exit Ticket

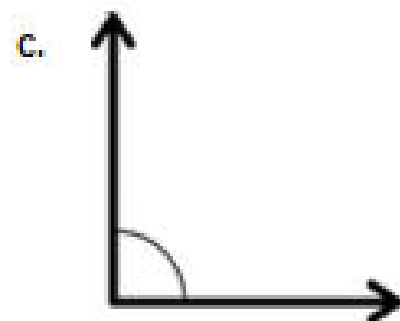
Name \_\_\_\_\_

Date \_\_\_\_\_

1. Use the right angle template that you made in class to determine if each of the following angles is greater than, less than, or equal to a right angle. Label each as *greater than*, *less than*, or *equal to*, and then connect each angle to the correct label of acute, right, or obtuse. The first one has been completed for you.



*Less than*



Acute

