Lesson 2.3 - What is a degree?

Before we move onto the last basic rigid motion, we need to explore the meaning of a degree. To begin, complete the following activity.

Set 1- Fill in the blanks and answer any questions.



One ruler's length represents one _____.

When a ruler is divided into 12 segments, each segment is called an _____.

A clock is divided into 12 segments. Each segment represents one _____.

When a clock is divided into 60 segments, each segment can represent a ______ or a





A protractor is divided up into how many segments? _____

Each segment represents a

In what direction does the outside track count from 0 to 180?

In what direction does the inside track count from 0 to 180?

How would you describe the shape of a protractor?

What shape would you form if you took two protractors and lined up the straight sides of each?

How many degrees does a circle contain?

In your own words, explain what a degree is.



Set 2 – Fill in the blank and answer the question below. Show your work.



Set 3 – Calculate the number of degrees that the major and minor angles contain when two rays begin at the center of the clock and pass through the following times. Use the diagram to draw the angle and measure the minor angle to verify your work. Actual measurements may be different than your calculated answers by a degree or two.

A) <u>12 o'clock and 4 o'clock. Sł</u>	<u>now work.</u>	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Minor angle =	Major angle =	
B) <u>12 o'clock and 9 o'clock. Sł</u>	<u>iow work.</u>	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Minor angle =	Major angle =	



Review

A) Calculate the number of degrees that the major and minor angles contain when two rays begin at the center of the clock and pass through the following times. Use the diagram to draw the angle and measure the minor angle to verify your work. Actual measurements may be different than your calculated answers by a degree or two.

B) Without a diagram, determine the angle formed by the condition stated. R#1 B) A) 12 o'clock and 5 o'clock. Show work. Find the minor angle formed by 2 o'clock and 6 o'clock. Minor angle = Major angle = R#2 B) A) <u>3 o'clock and 7 o'clock. Show work.</u> Find the minor angle formed by 3 o'clock and 8 o'clock. Minor angle = 10Major angle = R#3 B) B) <u>9 o'clock and 11:30. Show work.</u> Find the minor angle formed by 1 o'clock and 9 o'clock. Minor angle = 10 Major angle =