Name: _____ More Geometry

***Why 360^o in a circle*?**

The idea comes from the ancient Sumerians who thought that the Sun traveled in a circle around the Earth (instead of the other way around). According to their calculations, it took 360 days for the Sun to complete one circular orbit, so they divided the circle into the 360 parts (degrees) that we still use today.

The Sumerian idea was later taken over by the Babylonians, who based their number system on the number 60 (just like ours is based on the number 10). They didn't have decimal numbers, only fractions, so 60 was a good choice. Why? Because it can be divided by 2, 3, 4, 5, and 6 without a remainder.

1. 2, 3, 4, 5 and 6 are factors of 60. What are the other factors of 60?

   How many factors does 60 have altogether? _____

   What are the first 6 multiples of 60?

2. Fill in the blanks with fractions *reduced to lowest terms.*

What fraction of a full circle does a 40^o angle sweep out? _____

What fraction of a right angle is 45^o? _____

Wat fraction of a straight angle is 60^o? _____

3. Draw two points A and B. Now, draw a line that goes through both points.

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4. Draw a ray that has its vertex at point C and passes through point D.

5. Draw and angle that has its vertex at point E and sides EF and EG.

6. Draw a sketch of a 90^o angle:

7. What fraction of a right angle is an angle of 45^o? _____ (reduced)

Draw a sketch of a 45^o angle:

8. What fraction of a right angle is an angle of 30^o? _____ (reduced)

Draw a sketch of a 30^o angle:

9. What fraction of a right angle is an angle of 60^o? _____ (reduced)

Draw a sketch of a 60^o angle:

10. Draw a sketch of a 180^o angle: