<u>Clock Math Exercise</u>

Your Name (s) _____

Explanation: In this exercise, you will be drawing the face of a clock following the instructions below.

Equipment Needed: Ruler, sharpened pencil, eraser (if needed for mistakes), protractor, compass, back of this paper to draw on.

Prior Knowledge: radius, diameter, parallel, horizontal, vertical, using a protractor/compass and measurement skills. Also, how to draw a line parallel to aother line.

Special Instructions: 1. <u>Layout lines</u> are used to mark locations on a drawing and are to be very light (not made dark). This can be done by pressing very lightly when drawing (don't erase them when done). 2. Use a <u>ruler</u> to draw all <u>straight</u> lines so they are neat. 3. All measurements must be within 1/16th of an inch accurate. 4. Erase all stray (unwanted or mistakes) lines.

On back side of this paper (or other paper if told):

1. Draw a horizontal and vertical <u>layout-line</u> in the center of paper (if you fold like a "hotdog/hamburger" it will help to find the horizontal and vertical center!).
2. Draw a 3/8" boarder parallel to outside edge of paper (remember: any line which is not a layout line should be dark).
3. Calculate how many degrees are between each hour number on a clock. Hint, there are 360 degrees in a circle and 12 hours on a clock.
4. From the center, draw a light layout line for every place there would be an hour on the clock (if you do this right, the horizontal and vertical lines should be 12, 3, 6, and 9 o'clock).
5. From Center, draw a circle that has a 3-5/8" radius (this is the outside of your clock).
6. Draw a very light 3" radius circle from center (this is where the numbers will be placed) .
7. Draw your hour numbers. They must be ½" high and vertical (up and down). They must be placed centered where the 3" radius circle meets the number layout lines.
8. Draw the time displaying 2:30
    a. The minute hand must be 3-1/4" long with a small hour drawn on end.
    b. The hour hand must be 3" long with arrow on end.