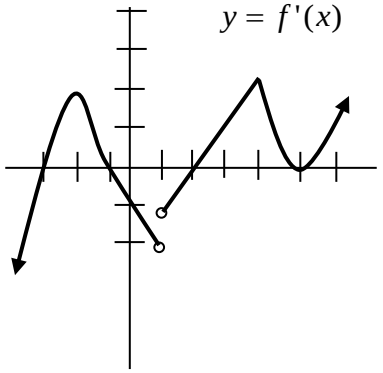
MATH 205 – Calculus I **SQ 4.3**

Name: _____ Date: _____

For the following questions, refer to the graph of $y = f'(x)$**,** the ***DERIVATIVE*** of $f(x)$, show below. The domain of $f(x)$ is all real numbers. Once again, this is the graph of the **DERIVATIVE!**



1. Find all critical points of the **original function** $f(x)$.

2. Estimate the intervals over which the **original function** $f(x)$ is increasing.

3. Estimate the intervals over which the **original function** $f(x)$ is decreasing.

4. Estimate the intervals over which the **original function** $f(x)$ is concave up.

5. Estimate the intervals over which the **original function** $f(x)$ is concave down.

6. Estimate the *x*-coord. of all local maximum points of the **original function** $f(x)$.

7. Estimate the *x*-coord. of all the local minimum points of the **original function** $f(x)$.

8. Estimate the *x*-coordinates of all inflection points of the **original function** $f(x)$.