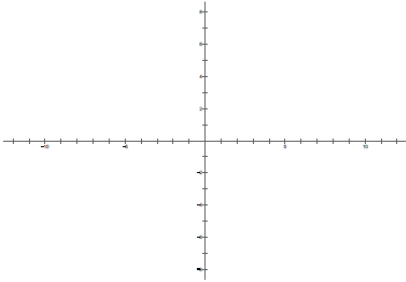


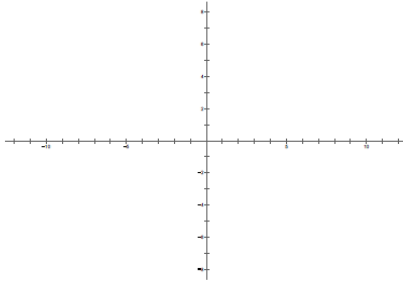
Properties of Graphs Activity

For each example, sketch a possible graph for a function f that has the specified properties.
Compare your graphs with your group members and discuss how you determined your graph.

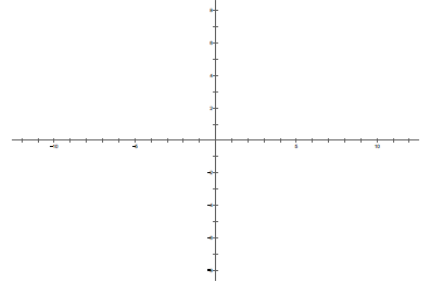
1. f is increasing,
 $f(x) > 0$,
 f' is increasing



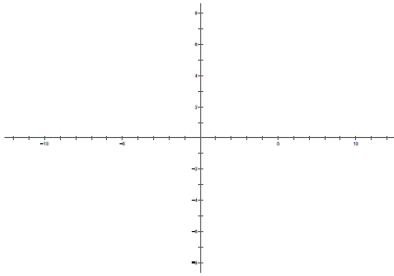
2. f is decreasing,
 $f(x) > 0$,
 $f''(x) > 0$



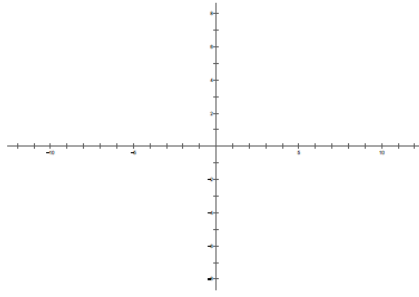
3. f is increasing,
 $f(x) < 0$,
 $f''(x) < 0$



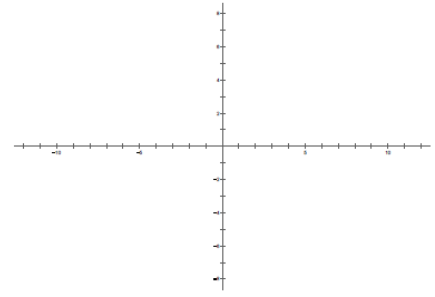
4. $f'(x) > 0$,
 $f(x) < 0$,
 $f''(x) < 0$



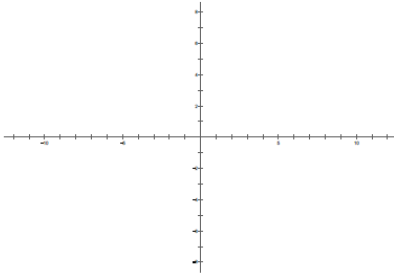
5. f' is decreasing,
 $f(x) < 0$,
 $f'(x) < 0$



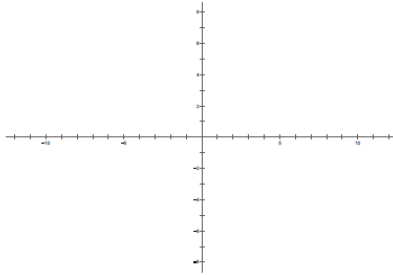
6. f' is increasing,
 $f(x) > 0$,
 $f'(x) < 0$



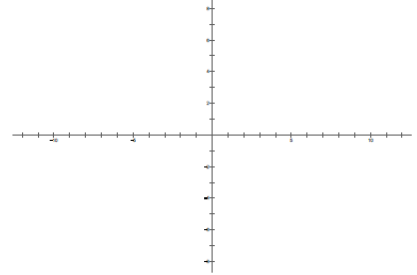
7. $f'(x) < 0$,
 $f(x) > 0$,
 $f''(x) < 0$



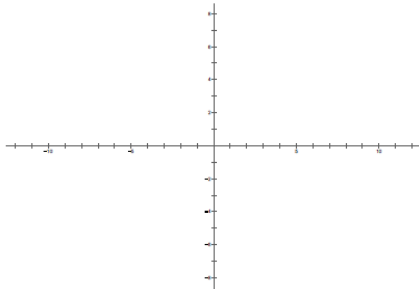
8. f is increasing,
 $f(x) > 0$,
 $f''(x) > 0$



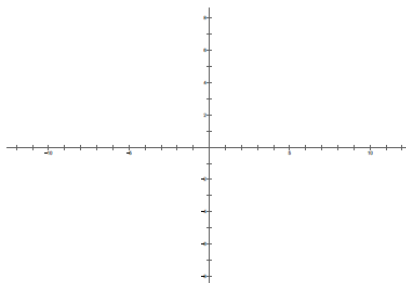
9. f is decreasing,
 $f(x) < 0$,
 f' is increasing



10. f is decreasing,
 $f(x) > 0$,
 f' is decreasing



11. f is increasing,
 $f(x) < 0$,
 f' is increasing



12. f is decreasing,
 $f(x) < 0$,
 $f''(x) < 0$

