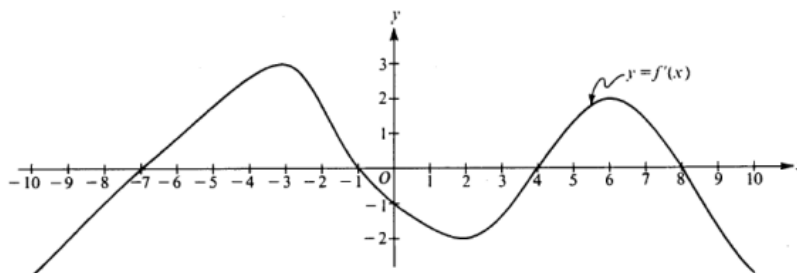


AP Calculus – Derivative Graph Interpolation Ch 4 Test 1 Review In Class



Note: This is the graph of the derivative of  $f$ , not the graph of  $f$ .

- 1) Is  $f(x)$  differentiable on the interval  $[-10, 10]$ ? Explain
- 2) Is  $f(x)$  continuous on the interval  $[-10, 10]$ ? Explain.
- 3) State the value(s) of  $x$  where the  $f'(x)$  is zero.
- 4) State the value(s) of  $x$  where  $f(x)$  has a relative maximum. Justify.
- 5) State the value(s) of  $x$  where  $f(x)$  has a relative minimum. Justify.
- 6) State the interval(s) where  $f(x)$  is increasing. Justify.
- 7) State the interval(s) where  $f(x)$  is decreasing. Justify.
- 8) State the value(s) of  $x$  where  $f(x)$  has a point of inflection. Justify.
- 9) State the interval(s) where  $f(x)$  is concave up. Use  $f'$  to justify your answer.
- 10) State the interval(s) where  $f(x)$  is concave down. Use  $f'$  to justify your answer.