



AP Precal Unit 1

Rates of Change + Concavity

Name: _____

Date: _____

For 1-8, find the rates of change over the given domain intervals, and for 9-11, find the concavity over the given domain intervals.

- 1. $f(x) = (x+2)(x-4)^2$, $[2, 5]$: _____
- 2. $g(x) = (x+3)(x-4)(x-3)$, $[5, 8]$: _____
- 3. $h(x) = (x+3)(x-1) / (x+4)$, $[4, 6]$: _____
- 4. $i(x) = x^2 + 3x - 5$, $[2, 4]$ _____
- 5. $j(x) = 2(x+5)(x-4)$, $[2, 6]$ _____
- 6. $k(x) = (3x + 2)(x - 5) / (x+2)(x-5)$, $[1, 3]$ _____
- 7. $l(x) = x^2 + 5x + 6$, $[2, 3]$ _____
- 8. $g(x) = x(2x-3)(x-4)$, $[0, 2]$ _____
- 9. Interval: $[2, 4]$
- 10. Interval: $[1, 2]$
- 11. Interval: $[2, 3]$

