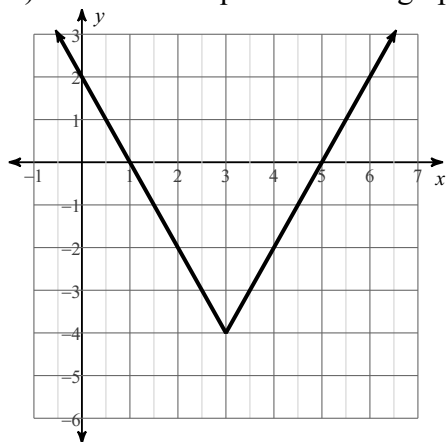


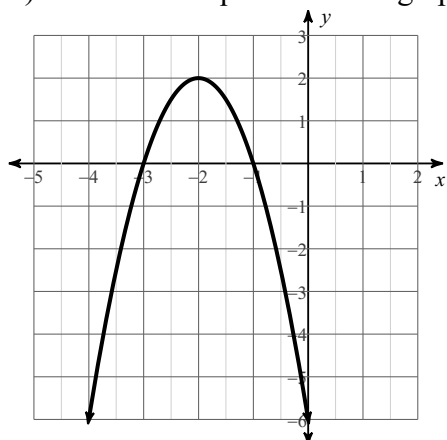
SM2 HW #4-4 (Analyze Functions)

Date _____ Period _____

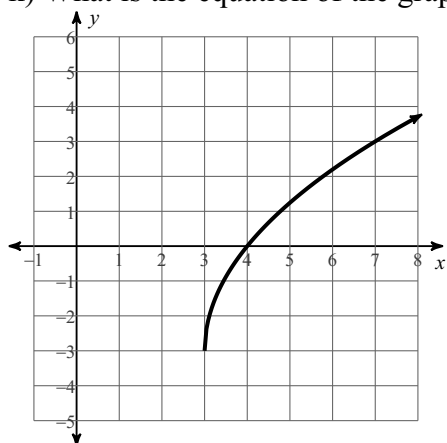
- 1) a) Where is the function increasing?
- b) Where is the function decreasing?
- c) Where is the function positive?
- d) Is the function even, odd, or neither?
- e) Where are the extrema and what type are they?
- f) How is it related to its parent function?
- g) What is the end behavior? (use "infinity notation")
- h) What is the domain?
- i) What is the range?
- j) What is the average rate of change between $x = 1$ and $x = 3$?
- k) What is the equation of the graph?



- 2) a) Where is the function increasing?
- b) Where is the function decreasing?
- c) Where is the function positive?
- d) Is the function even, odd, or neither?
- e) Where are the extrema and what type are they?
- f) How is it related to its parent function?
- g) What is the end behavior? (use "infinity notation")
- h) What is the domain?
- i) What is the range?
- j) What is the average rate of change between $x = -2$ and $x = -1$?
- k) What is the equation of the graph?



- 3) a) Where is the function increasing?
 b) Where is the function decreasing?
 c) Where is the function positive?
 d) Is the function even, odd, or neither?
 e) Where are the extrema and what type are they?
 f) How is it related to its parent function?
 g) What is the end behavior? (use "infinity notation")
 h) What is the domain?
 i) What is the range?
 j) What is the average rate of change between $x = 3$ and $x = 4$?
 k) What is the equation of the graph?



- 4) a) Where is the function increasing?
 b) Where is the function decreasing?
 c) Where is the function positive?
 d) Is the function even, odd, or neither?
 e) Where are the extrema and what type are they?
 f) How is it related to its parent function?
 g) What is the end behavior? (use "infinity notation")
 h) What is the domain?
 i) What is the range?
 j) What is the average rate of change between $x = -2$ and $x = 0$?
 k) What is the equation of the graph?

