

Quiz 2

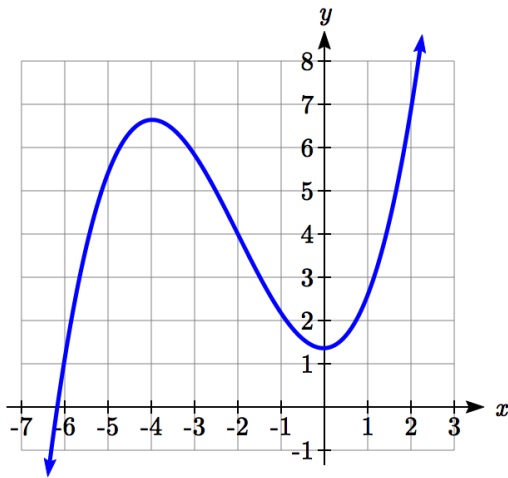
Math 3C: Precalculus
October 10, 2019

When you finish, please remain seated until class is dismissed

Name: _____

PID: _____

Problem 1 (6 points). Consider the graph below and answer the following questions.



(a) Where is the function concave up? Express your answer in interval or inequality notation. *(do not include inflection points in your answer)*

(b) Where is the function concave down? Express your answer in interval or inequality notation. *(do not include inflection points in your answer)*

Problem 2 (4 points). Let

$$u(a) = \frac{3a^2}{a+1} \quad \text{and}$$
$$v(b) = \sqrt{b-1}$$

(a) What is $u(v(2))$? Show your work.

(b) What is the formula for $(u \circ v)(y)$? Show your work.

Hint: Recall that $(u \circ v)$ is mathematical shorthand for “the composition of u with v ”