

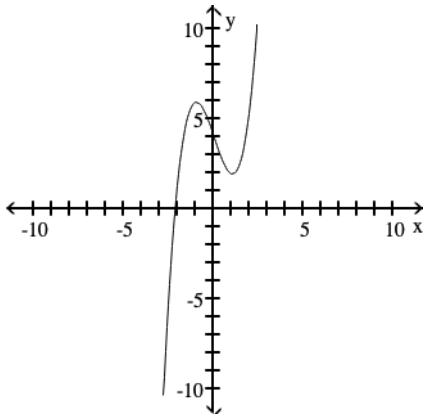
Concavity from Graph

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Use the graph of the function $f(x)$ to locate the local extrema and identify the intervals where the function is concave up and concave down.

1)

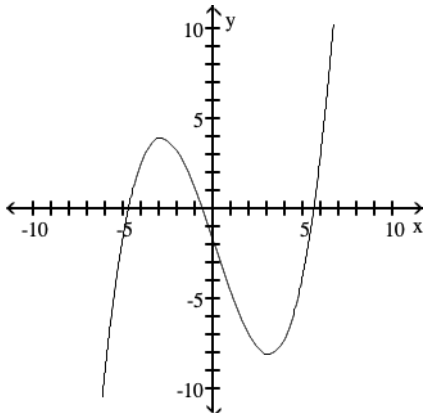
1) _____



- A) Local minimum at $x = 1$; local maximum at $x = -1$; concave up on $(0, \infty)$; concave down on $(-\infty, 0)$
- B) Local minimum at $x = 1$; local maximum at $x = -1$; concave up on $(-\infty, \infty)$
- C) Local minimum at $x = 1$; local maximum at $x = -1$; concave down on $(0, \infty)$; concave up on $(-\infty, 0)$
- D) Local minimum at $x = 1$; local maximum at $x = -1$; concave down on $(-\infty, \infty)$

2)

2) _____



- A) Local minimum at $x = 3$; local maximum at $x = -3$; concave up on $(-\infty, -3)$ and $(3, \infty)$; concave down on $(-3, 3)$
- B) Local minimum at $x = 3$; local maximum at $x = -3$; concave down on $(-\infty, -3)$ and $(3, \infty)$; concave up on $(-3, 3)$
- C) Local minimum at $x = 3$; local maximum at $x = -3$; concave up on $(0, \infty)$; concave down on $(-\infty, 0)$
- D) Local minimum at $x = 3$; local maximum at $x = -3$; concave down on $(0, \infty)$; concave up on $(-\infty, 0)$

Answer Key

Testname: CONCAVITY FROM GRAPH

- 1) A
- 2) C