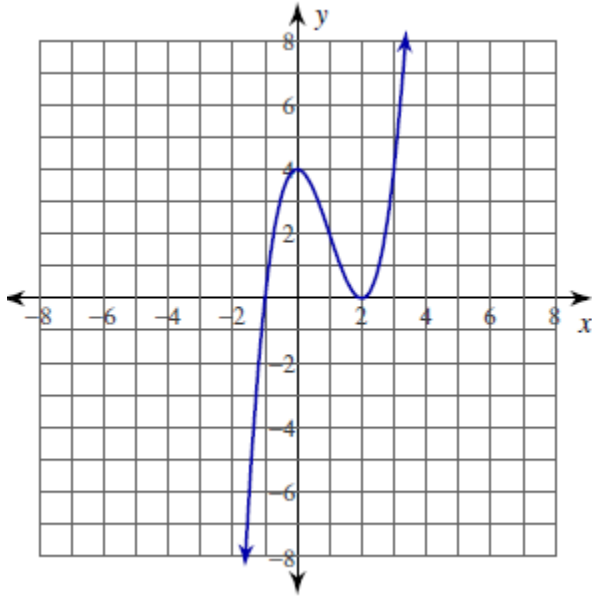


th 3 Honors

Unit 1 Day 3 - Intervals of Concavity Worksheet

Directions for problems # 1-4: For each problem, find where the function is concave up and concave down.

1.



2.
$$y = x^3 - 2x^2 - 2$$

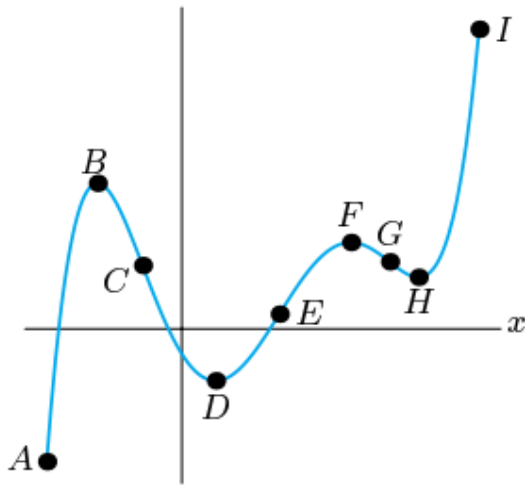
3.
$$y = x^4 + x^3 - 3x^2 + 1$$

4.
$$y = \frac{1}{x-3}$$

5.

Identify the x -intervals on which the function graphed in Figure 1.34 is:

- (a) Increasing and concave up
- (b) Increasing and concave down
- (c) Decreasing and concave up
- (d) Decreasing and concave down



Directions for problems # 6-8: For each problem, find the concavity (if it exists) of each function from the table and identify the type of function it most likely represents.

6.

x	-2	-1	0	1	2	3	4
y	-2	-1	0	1	2	3	4

7.

x	-2	-1	0	1	2	3	4	5
y	-6	-4	0	0	10	36	84	160

8.

x	-4	-3	-2	-1	0	1	2	3	4
y	180	40	0	0	4	0	0	40	180