

MPS22-HOMEWORK-5

170: 1, 5

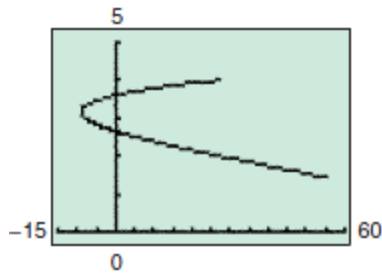
171: 9, 10, 13, 14

162: 37, 43, 64

163: 69

Select the correct number that corresponds to the right answer. There are more answers than questions. The answers may be repeated.

1.



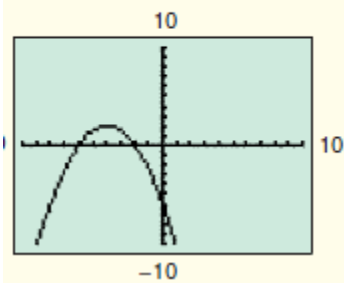
- b. This function is increasing over the interval $(1, \infty)$ and decreasing over the interval $(-\infty, 1)$.
- c. There is a local minimum at the point $(1, 0)$.
- d. This function is concave up over the interval $(-\infty, \infty)$.
- e. There is no point of inflection.

2.

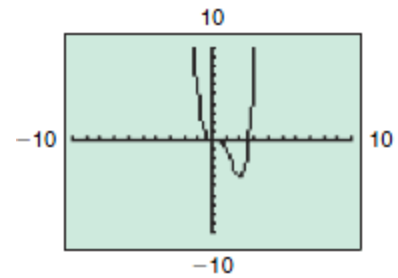
3. $(5,2)$; downward

4.

Vertex is $(-4, 2)$.
 y -intercept = -6
 The x -intercepts are -2 and -6 .

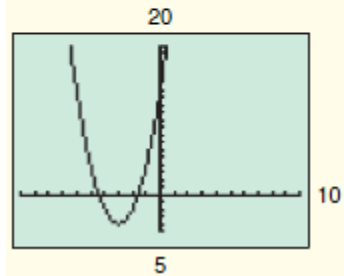


5.



6.

Vertex is $(-3, -4)$.
 y -intercept = 14
 The x -intercepts are
 $x = -3 + \sqrt{2}$,
 $x = -3 - \sqrt{2}$ or $x \approx -1.586$,
 -4.414 .



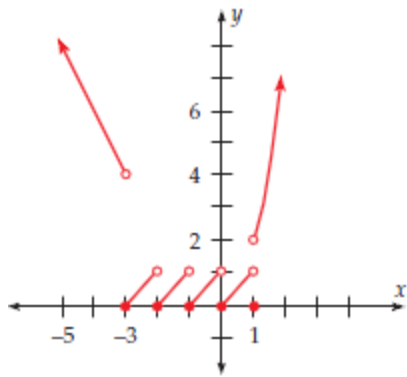
7. $(5,2)$; upward

8. $-3;-1$; downward

9. $2;-3$; downward

10. $2;-3$; upward

11.



12. 3;upward