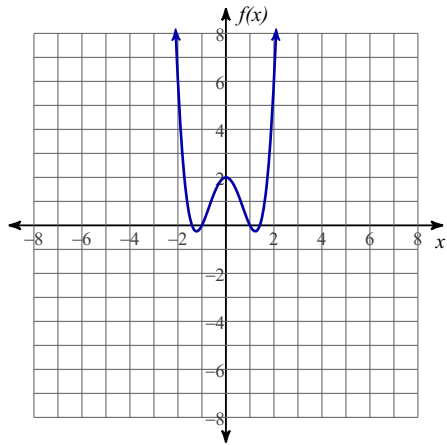


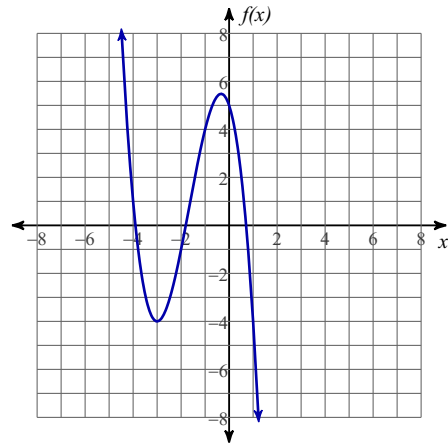
1.3 Increasing and decreasing intervals

Approximate the intervals where each function is increasing and decreasing.

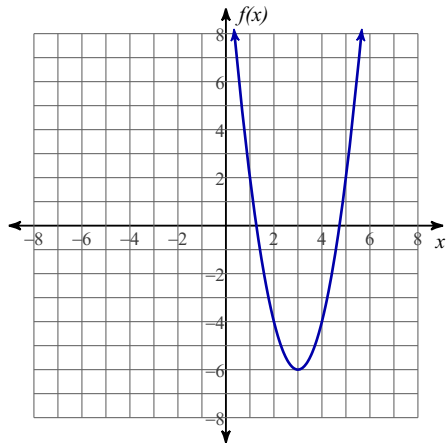
1)



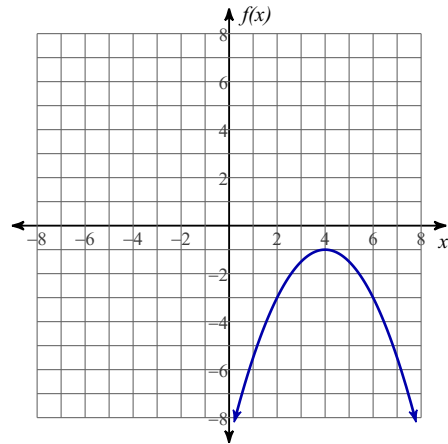
2)



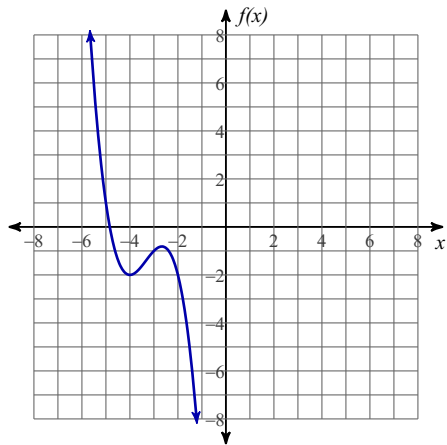
3)



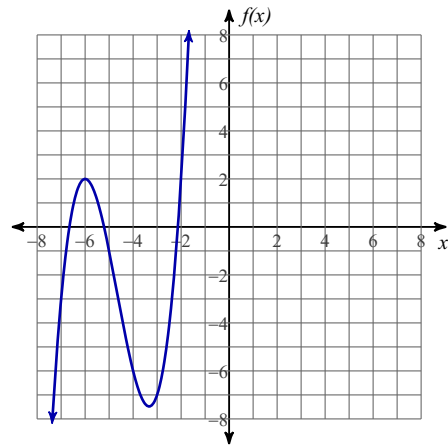
4)



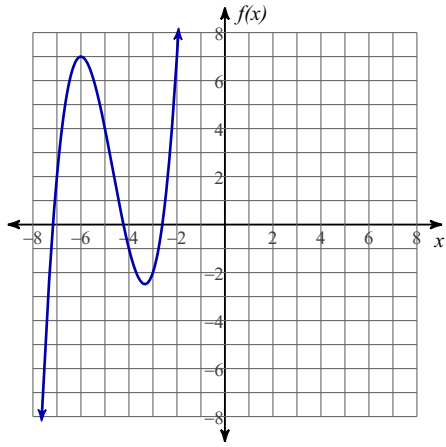
5)



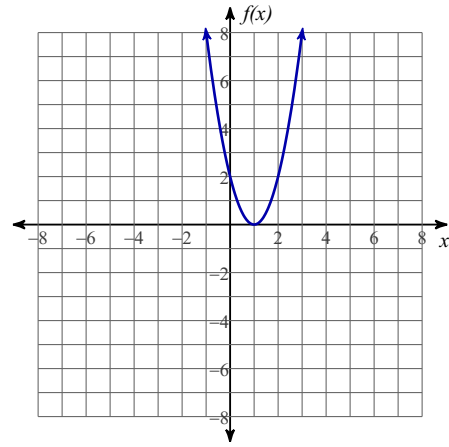
6)



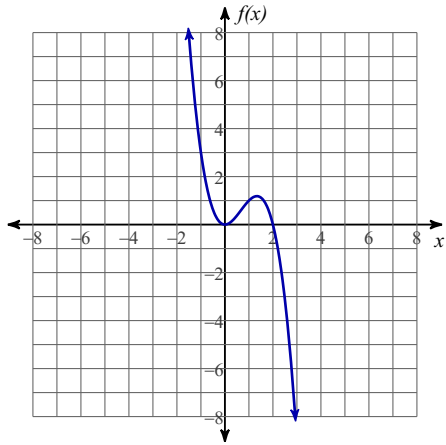
7)



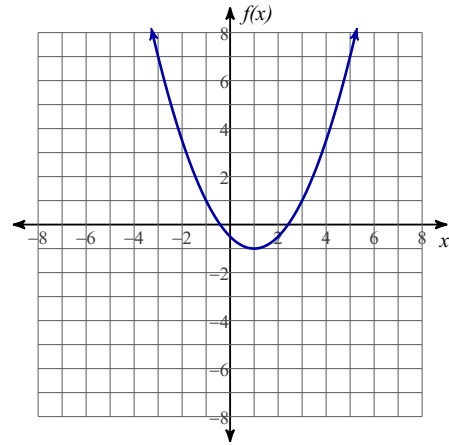
8)



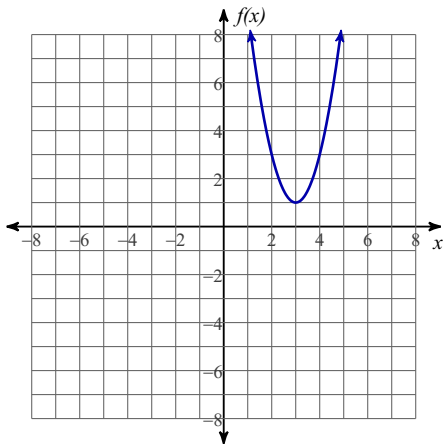
9)



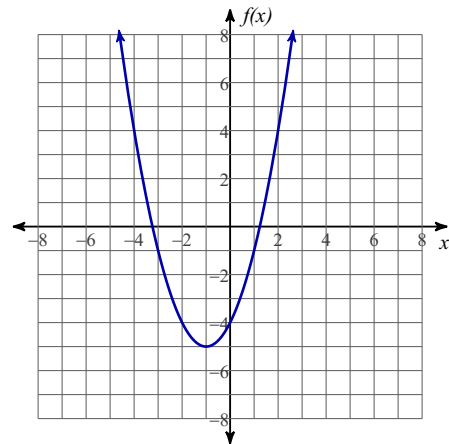
10)



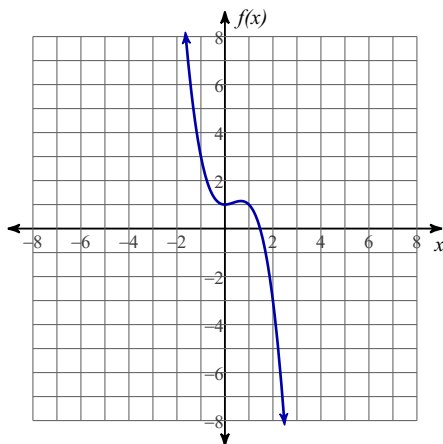
11)



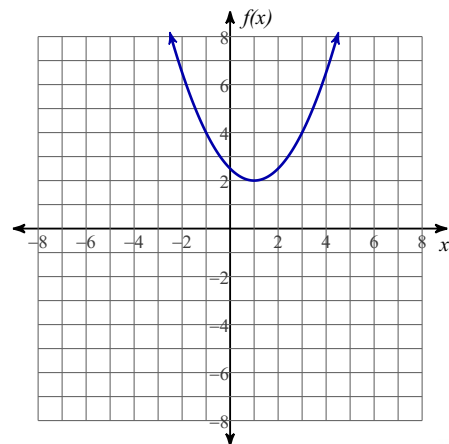
12)



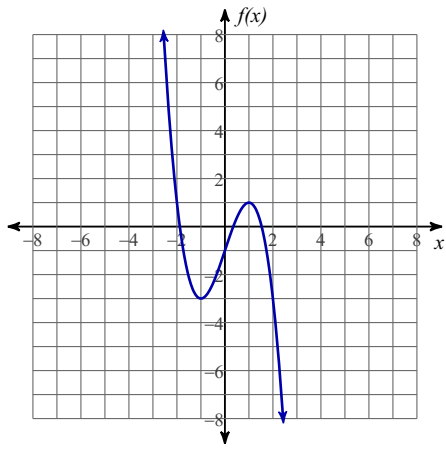
13)



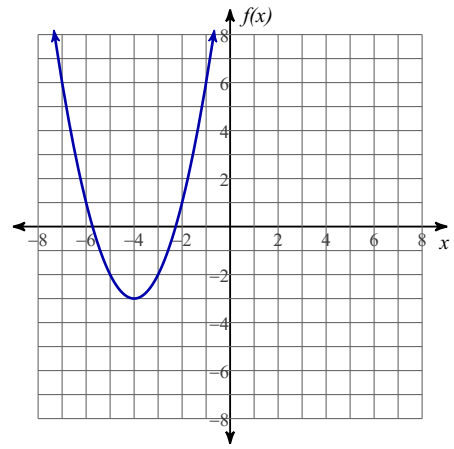
14)



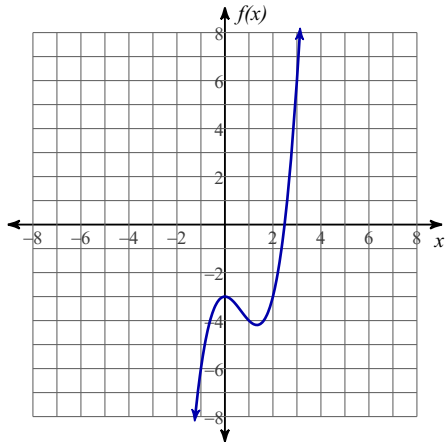
15)



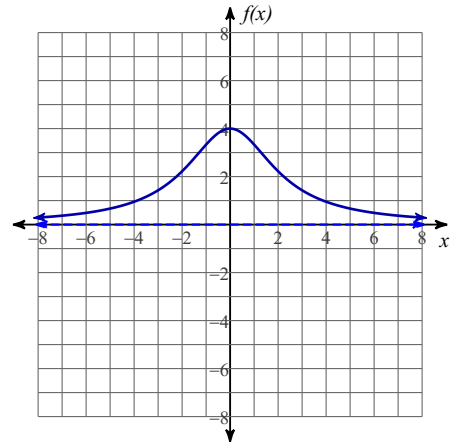
16)



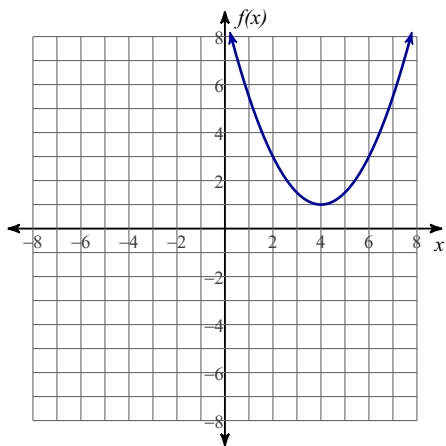
17)



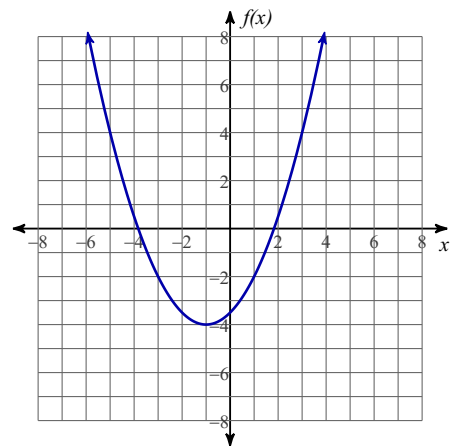
18)



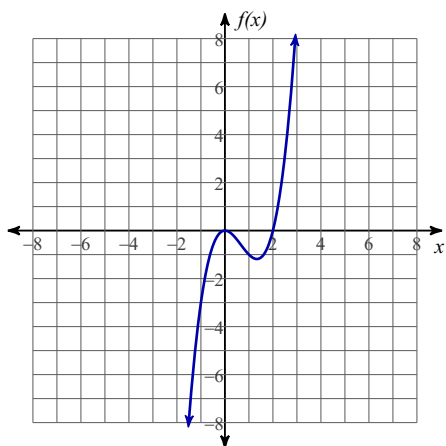
19)



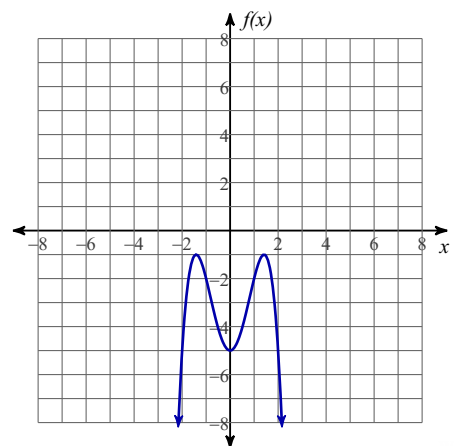
20)



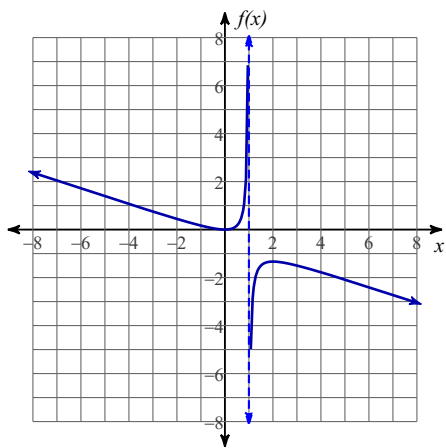
21)



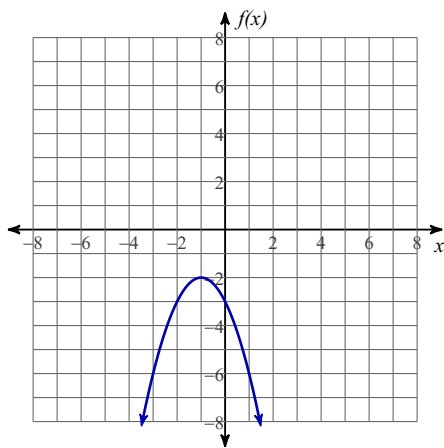
22)



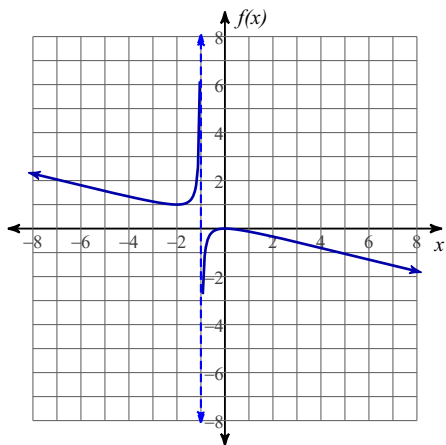
23)



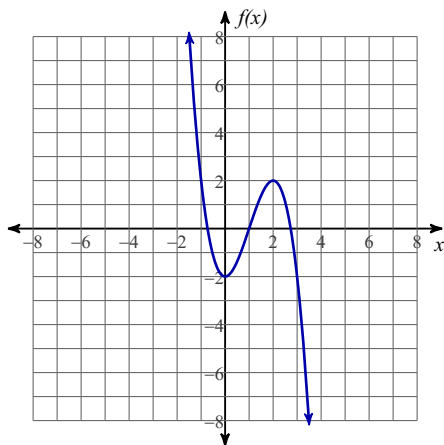
24)



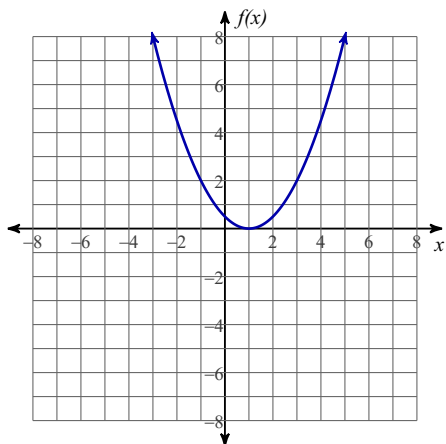
25)



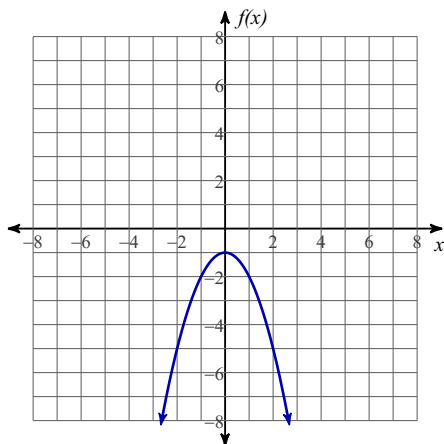
26)



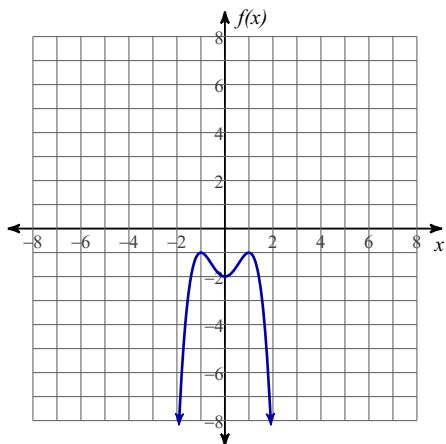
27)



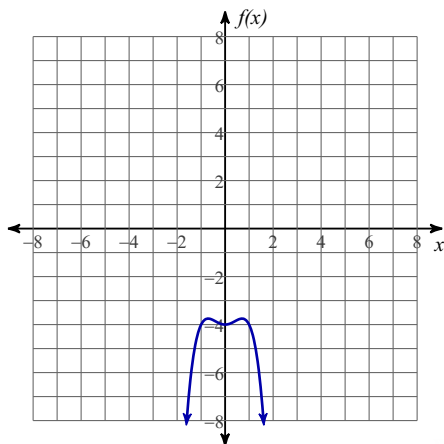
28)



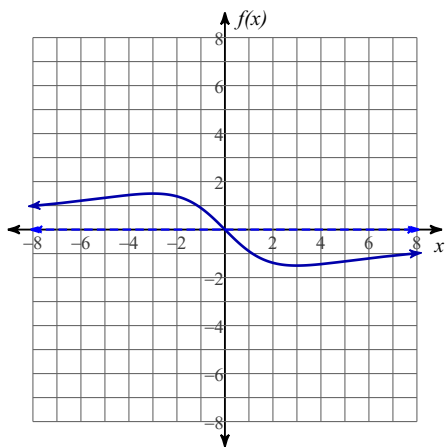
29)



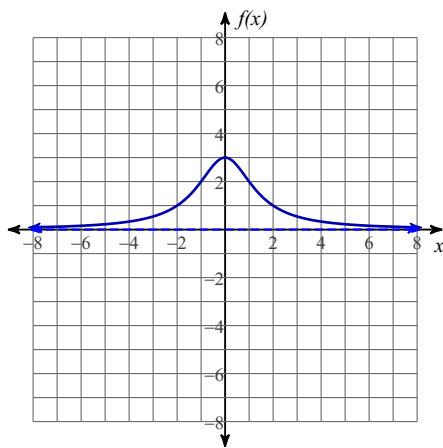
30)



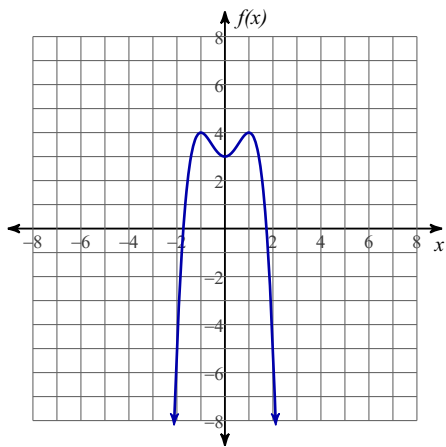
31)



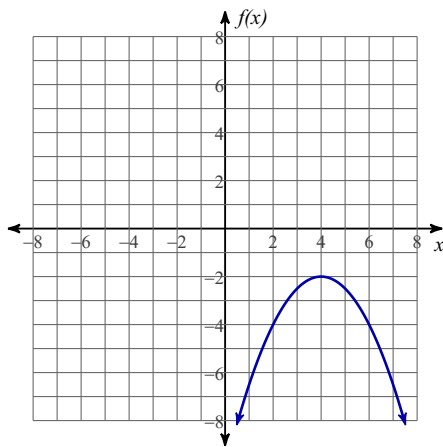
32)



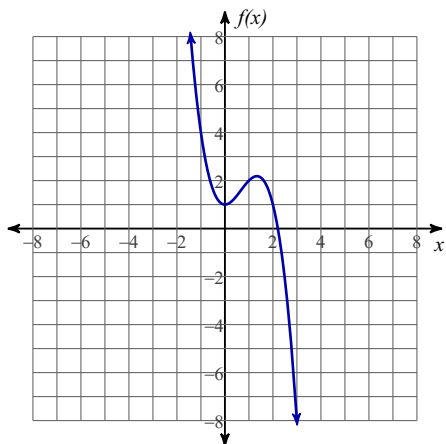
33)



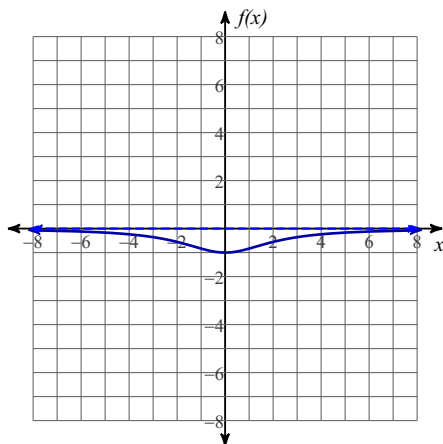
34)



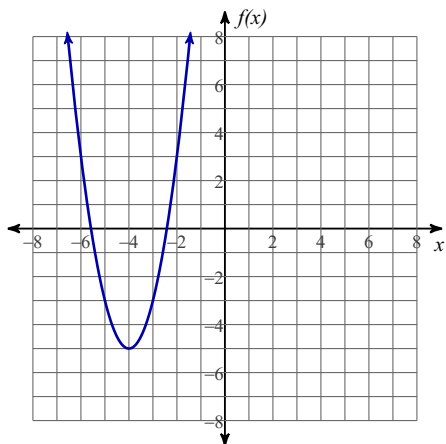
35)



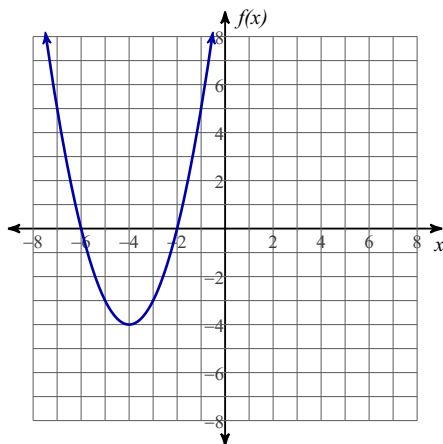
36)



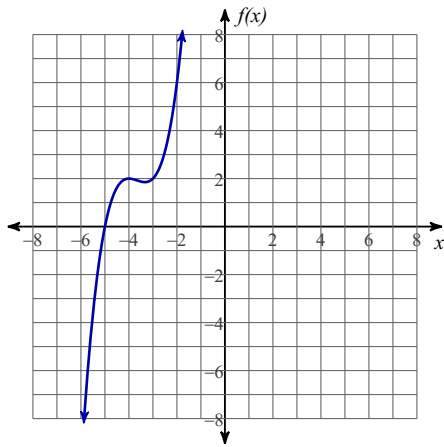
37)



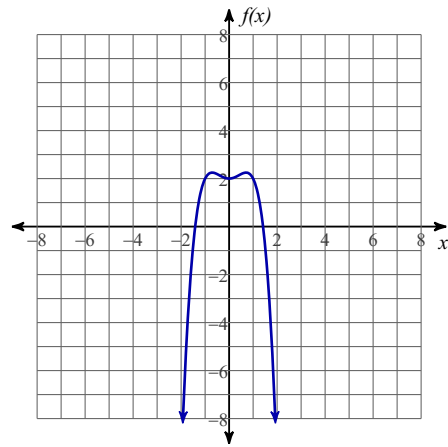
38)



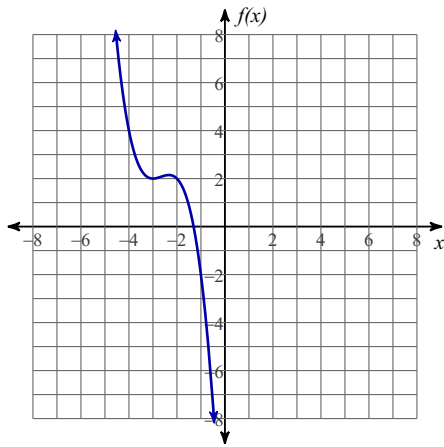
39)



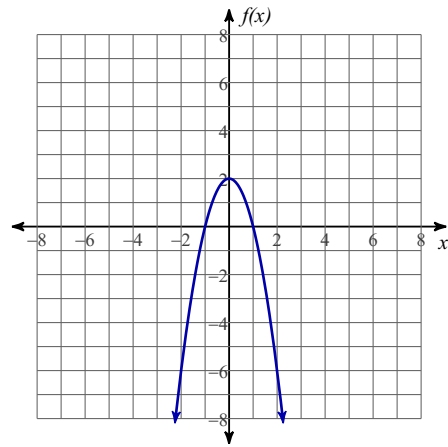
40)



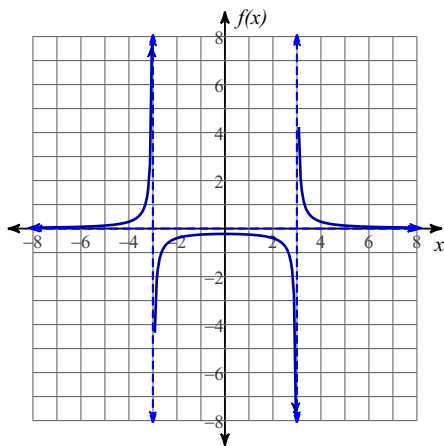
41)



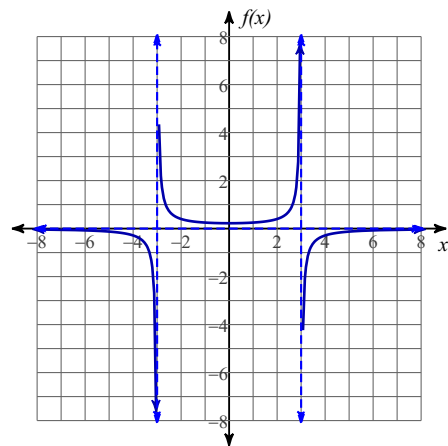
42)



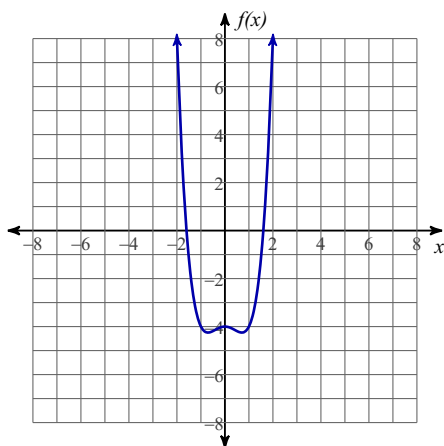
43)



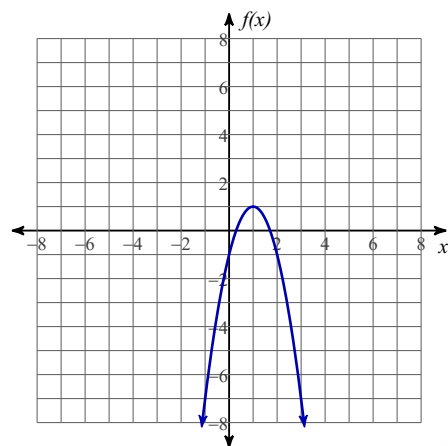
44)



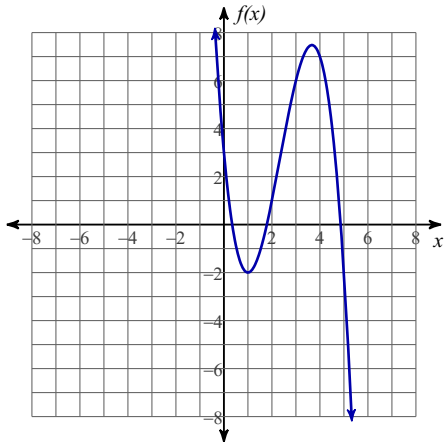
45)



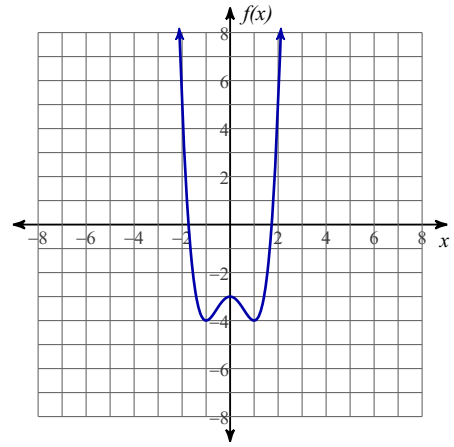
46)



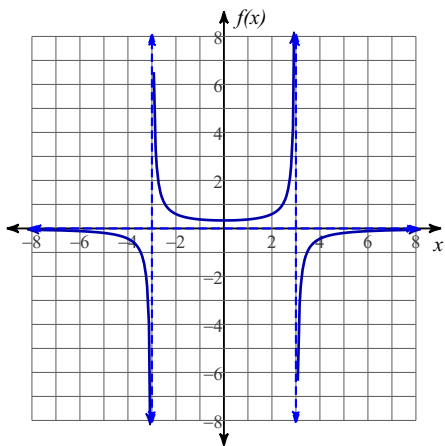
47)



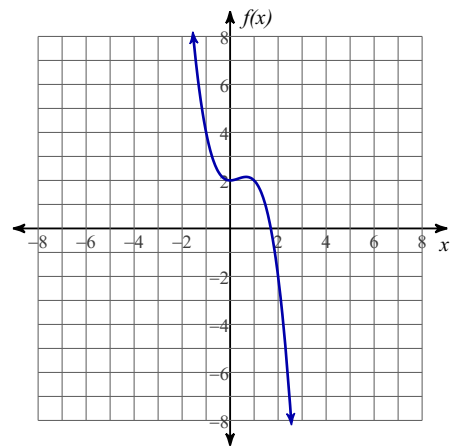
48)



49)



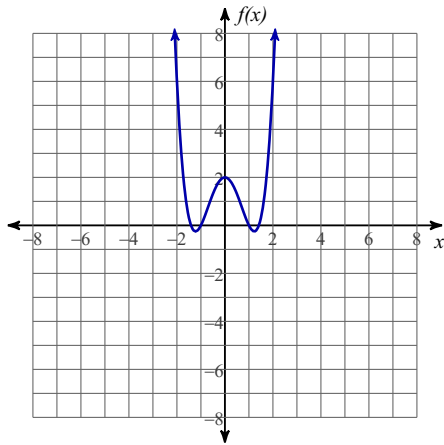
50)



1.3 Increasing and decreasing intervals

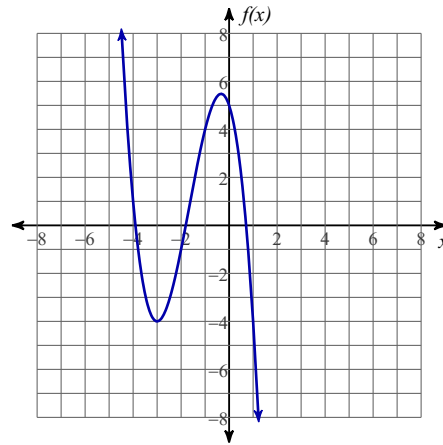
Approximate the intervals where each function is increasing and decreasing.

1)



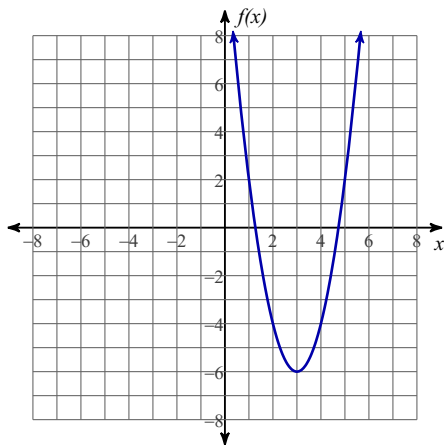
Increasing: $(-1.2, 0), (1.2, \infty)$ Decreasing: $(-\infty, -1.2), (0, 1.2)$

2)



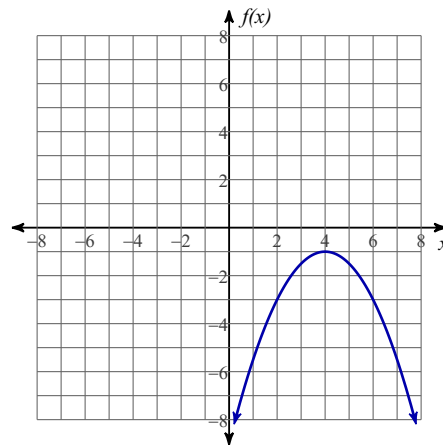
Increasing: $(-3, -0.3)$ Decreasing: $(-\infty, -3), (-0.3, \infty)$

3)



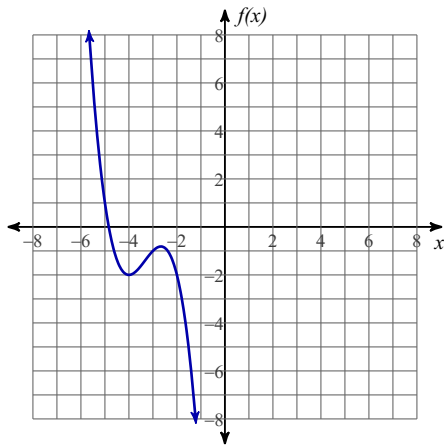
Increasing: $(3, \infty)$ Decreasing: $(-\infty, 3)$

4)



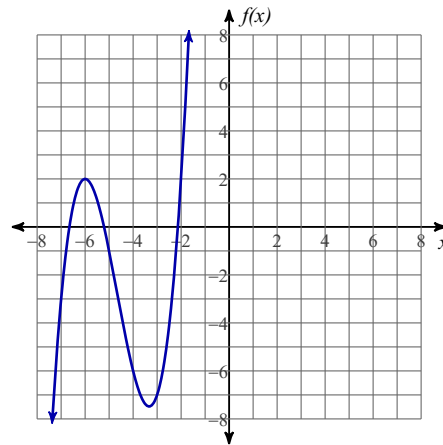
Increasing: $(-\infty, 4)$ Decreasing: $(4, \infty)$

5)



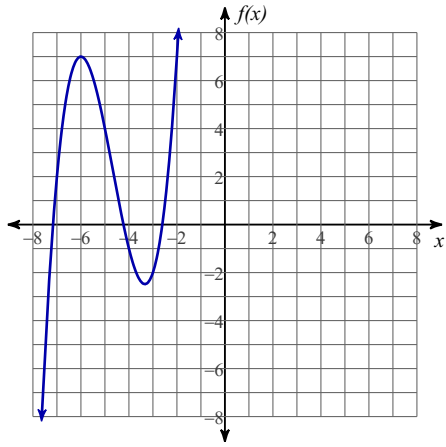
Increasing: $(-4, -2.7)$ Decreasing: $(-\infty, -4), (-2.7, \infty)$

6)

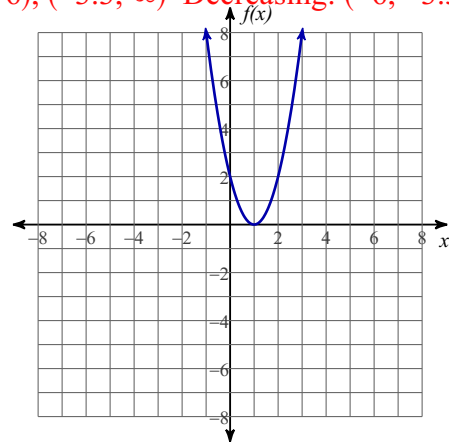


Increasing: $(-\infty, -6), (-3.3, \infty)$ Decreasing: $(-6, -3.3)$

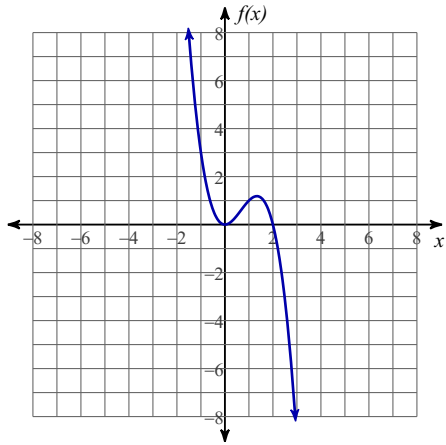
7)



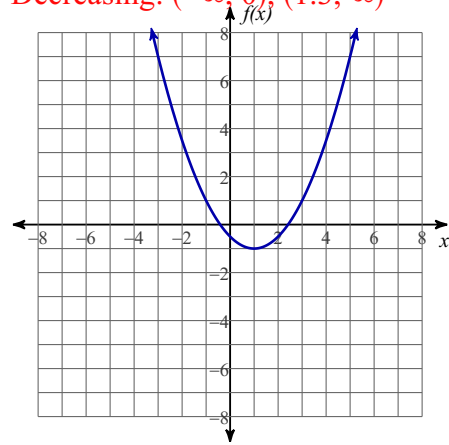
Increasing: $(-\infty, -6)$, $(-3.3, \infty)$ Decreasing: $(-6, -3.3)$ Increasing: $(1, \infty)$ D



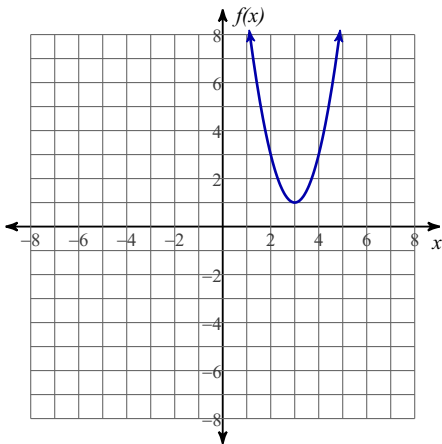
9)



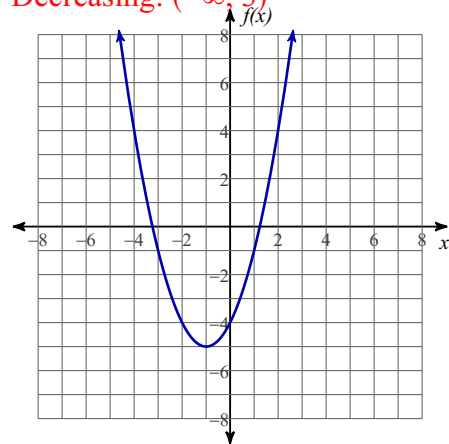
Increasing: $(0, 1)$ Decreasing: $(-\infty, 0)$, $(1, \infty)$ Increasing: $(1, \infty)$ D



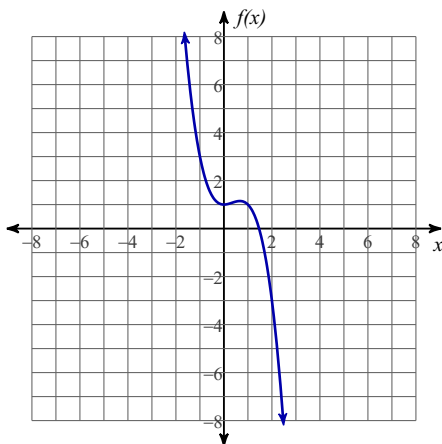
11)



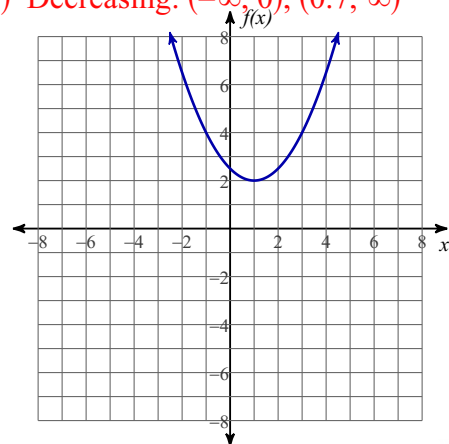
Increasing: $(3, 12)$ Decreasing: $(-\infty, 3)$ Increasing: $(-1, \infty)$ D



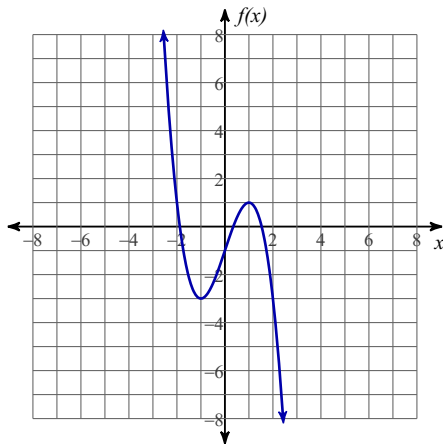
13)



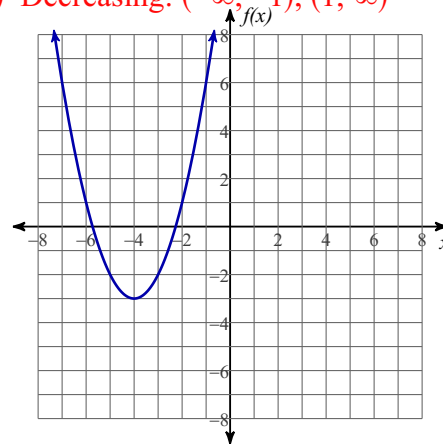
Increasing: $(0, 1)$ Decreasing: $(-\infty, 0)$, $(1, \infty)$ Increasing: $(1, \infty)$ D



15)

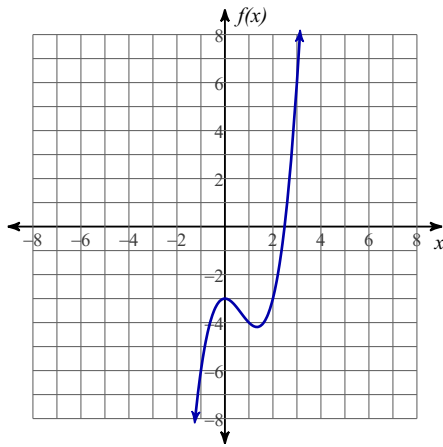


Increasing: $(-1, 1)$ Decreasing: $(-\infty, -1), (1, \infty)$

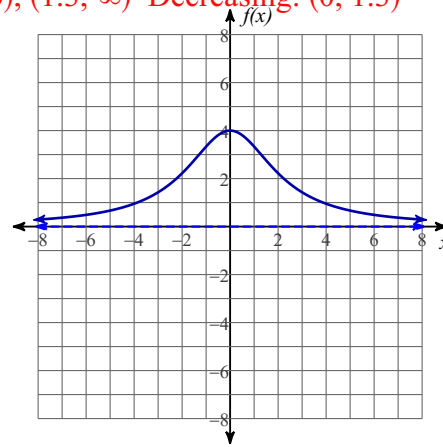


Increasing: $(-4, \infty)$

17)

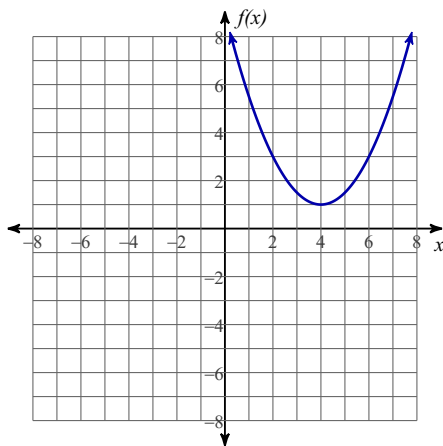


Increasing: $(1, 3), (3, \infty)$ Decreasing: $(0, 1)$

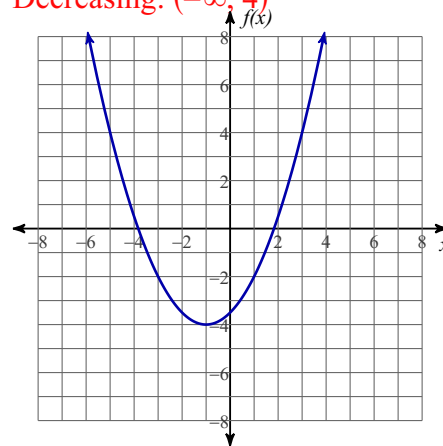


Increasing: $(-\infty, 0)$

19)

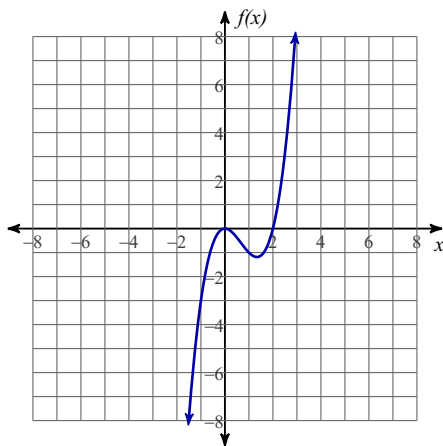


Increasing: $(4, \infty)$ Decreasing: $(-\infty, 4)$

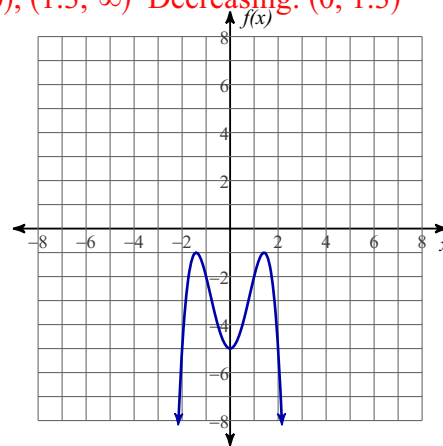


Increasing: $(-2, \infty)$

21)

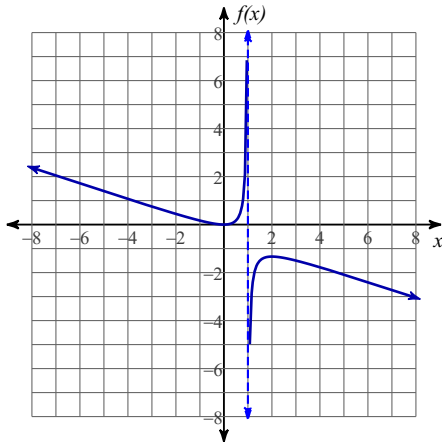


Increasing: $(1, 3), (3, \infty)$ Decreasing: $(0, 1)$

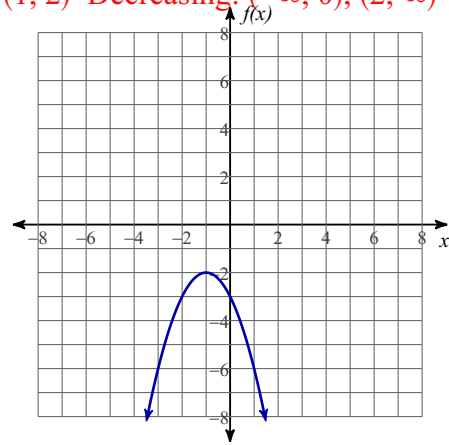


Increasing: $(-\infty, 0)$

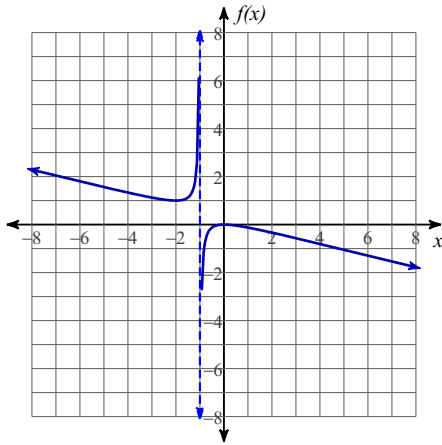
23)



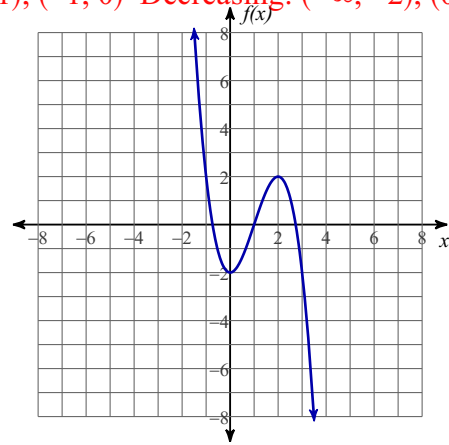
Increasing: $(0, 1)$ $(1, 2)$ Decreasing: $(-\infty, 0), (2, \infty)$ Increasing: $(-\infty, -1)$



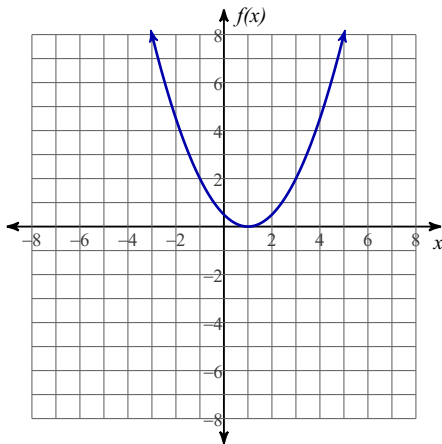
25)



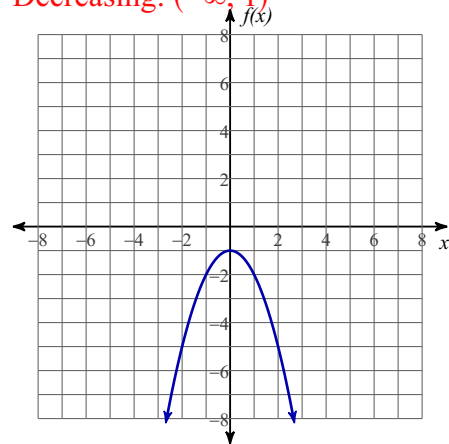
Increasing: $(-\infty, 1), (-1, 0)$ Decreasing: $(-\infty, -2), (0, \infty)$ Increasing: $(0, 2)$ D



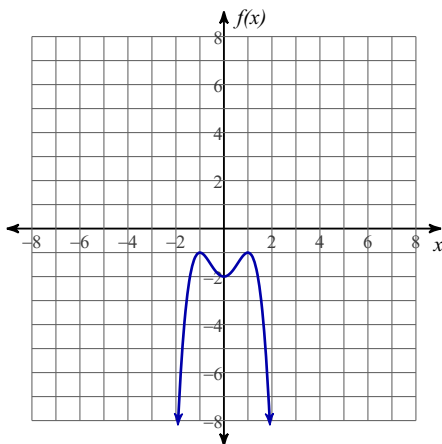
27)



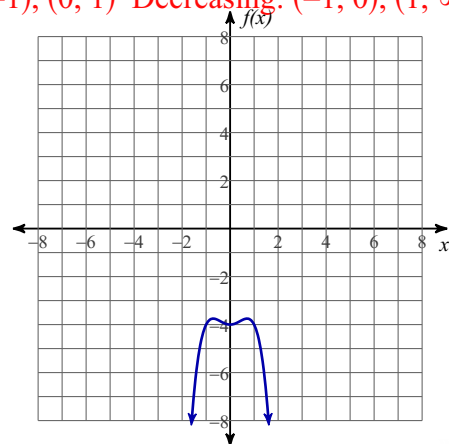
Increasing: $(1, 2)$ Decreasing: $(-\infty, 1)$ Increasing: $(-\infty, 0)$



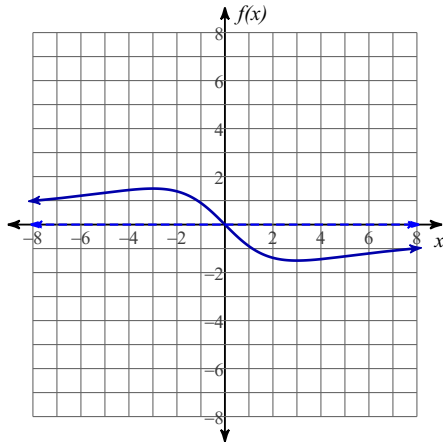
29)



Increasing: $(-\infty, 1), (0, 1)$ Decreasing: $(-1, 0), (1, \infty)$ Increasing: $(-\infty, 0)$

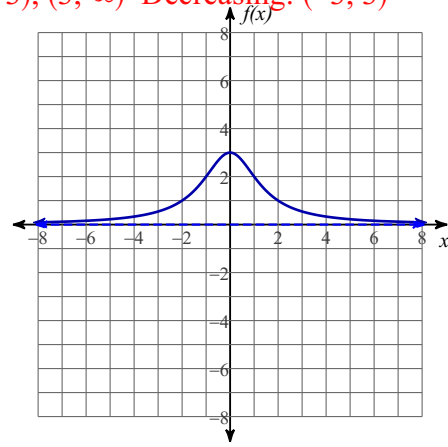


31)

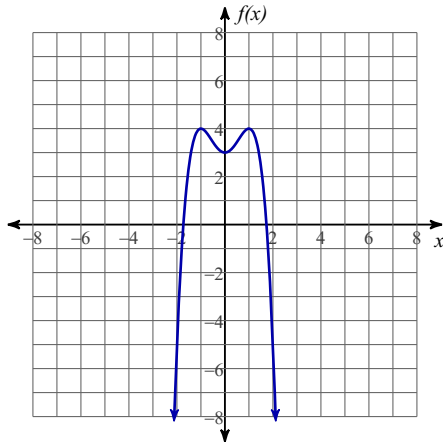


Increasing: $(-\infty, -3)$, $(3, \infty)$ Decreasing: $(-3, 3)$

Increasing: $(-\infty, 0)$

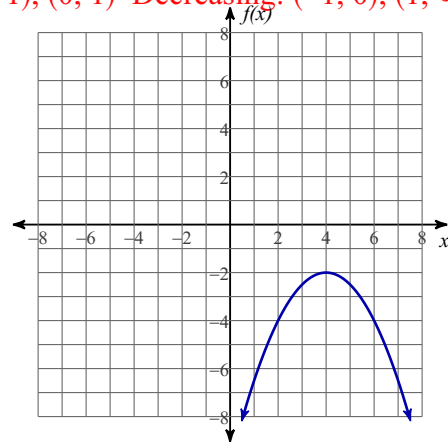


33)

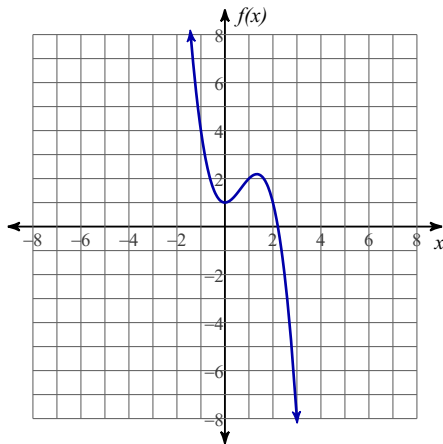


Increasing: $(-\infty, -1)$, $(0, 1)$ Decreasing: $(-1, 0)$, $(1, \infty)$

Increasing: $(-\infty, 4)$

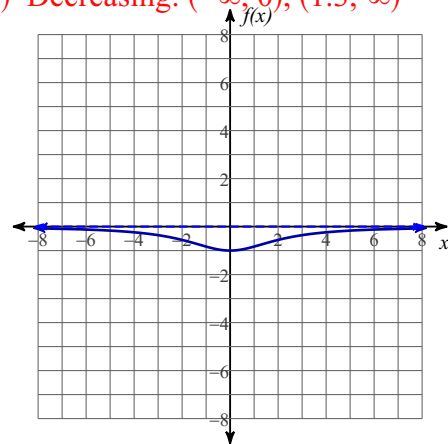


35)

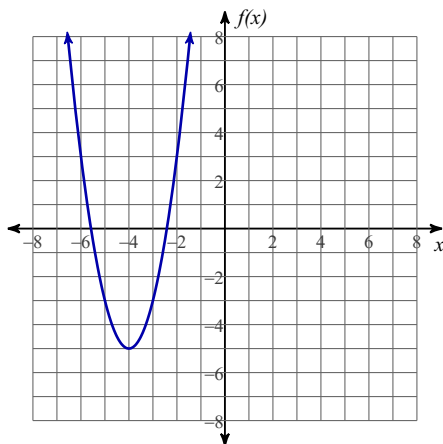


Increasing: $(0, 1)$ Decreasing: $(-\infty, 0)$, $(1, \infty)$

Increasing: $(0, \infty)$

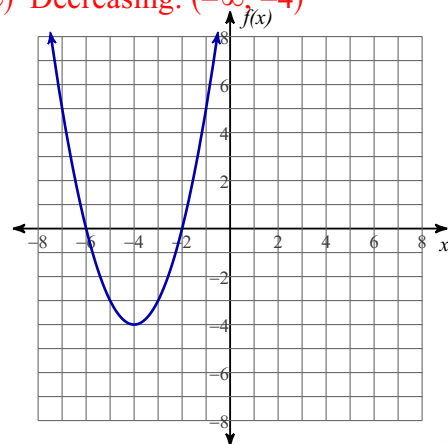


37)

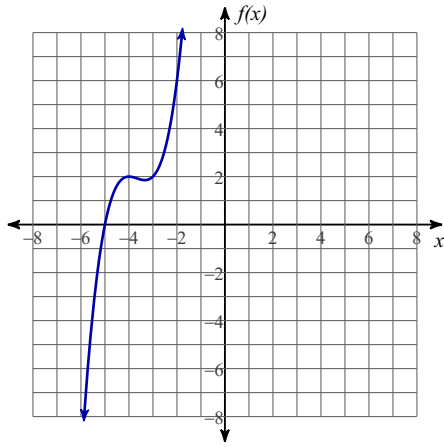


Increasing: $(-\infty, -4)$ Decreasing: $(-4, \infty)$

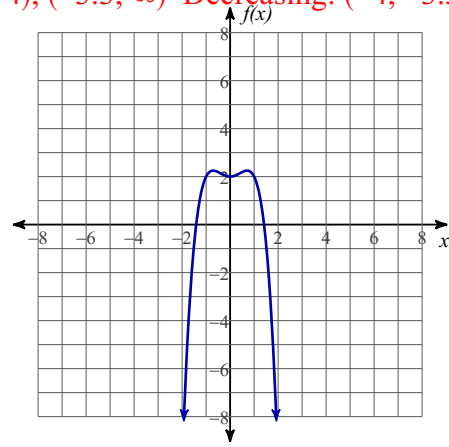
Increasing: $(-4, \infty)$



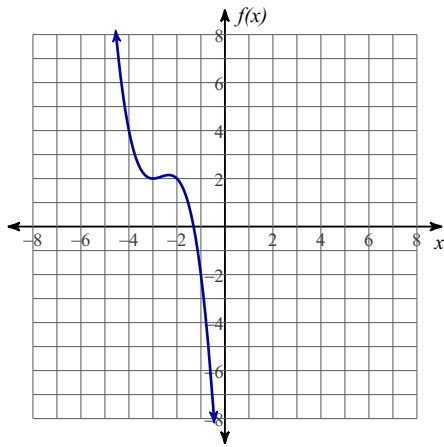
39)



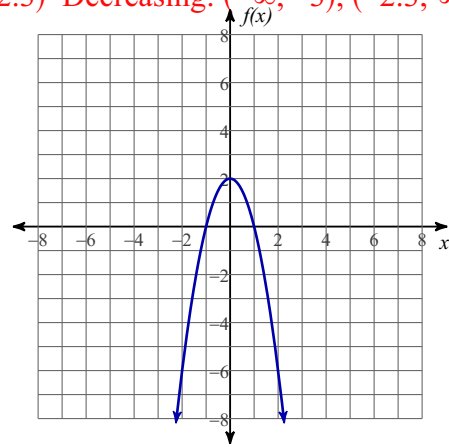
Increasing: $(-\infty, -4)$, $(-3.3, \infty)$ Decreasing: $(-4, -3.3)$ Increasing: $(-\infty, -0)$



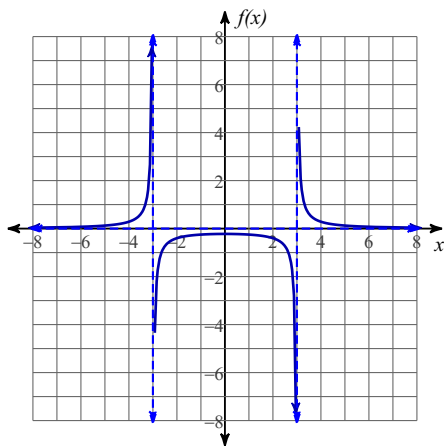
41)



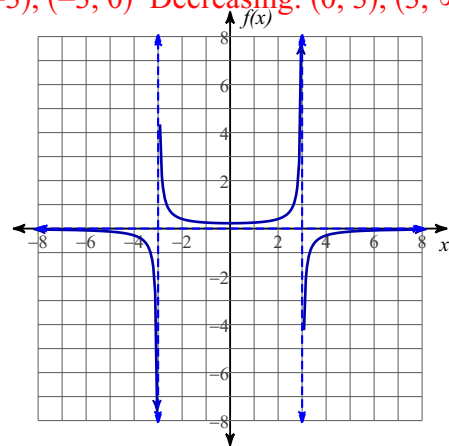
Increasing: $(-\infty, -2.3)$ Decreasing: $(-\infty, -3)$, $(-2.3, \infty)$ Increasing: $(-\infty, 0)$



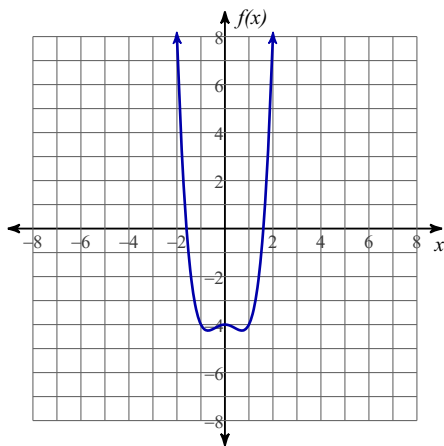
43)



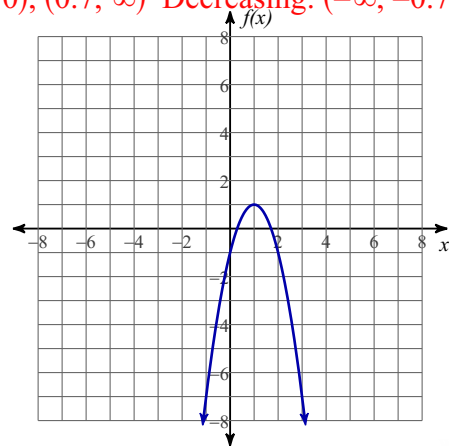
Increasing: $(-\infty, -3)$, $(-3, 0)$ Decreasing: $(0, 3)$, $(3, \infty)$ Increasing: $(0, 3)$, $(3, \infty)$



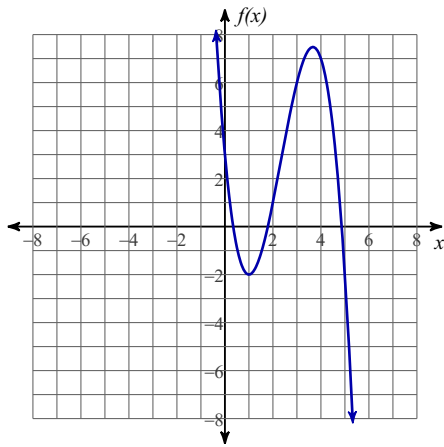
45)



Increasing: $(-\infty, 0)$, $(0.7, \infty)$ Decreasing: $(-\infty, -0.7)$, $(0, 0.7)$ Increasing: $(-\infty, 1)$

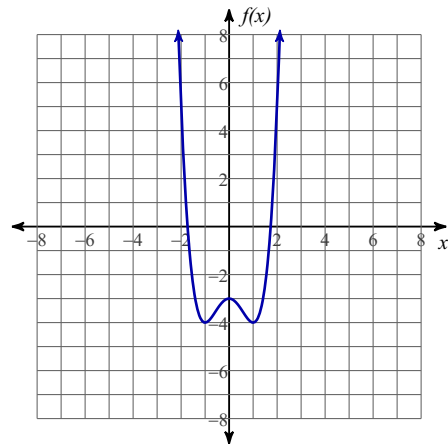


47)



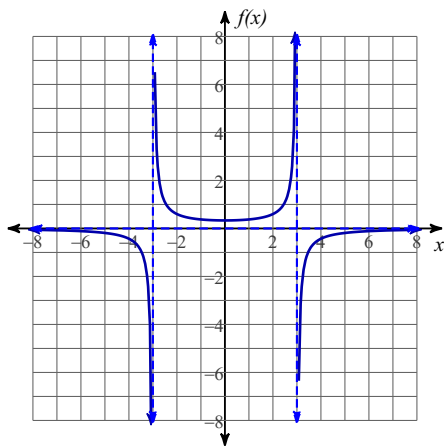
Increasing: $(1, 3.7)$ Decreasing: $(-\infty, 1), (3.7, \infty)$

48)



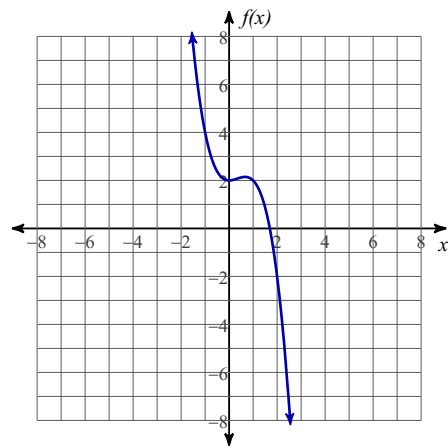
Increasing: $(-1, 0), (1, \infty)$ Decreasing: $(-\infty, -1), (0, 1)$

49)



Increasing: $(0, 3), (3, \infty)$ Decreasing: $(-\infty, -3), (-3, 0)$

50)



Increasing: $(0, 0.7)$ Decreasing: $(-\infty, 0), (0.7, \infty)$