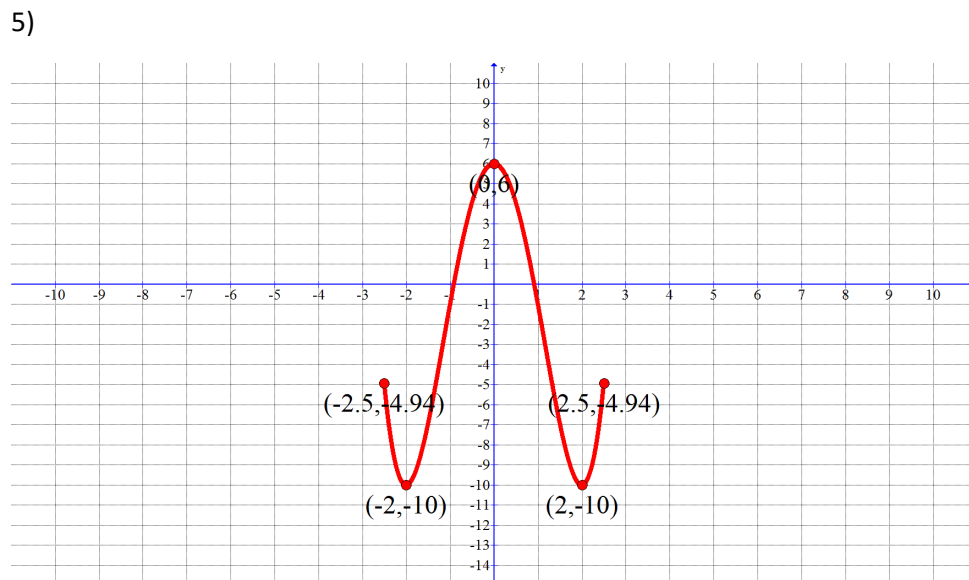
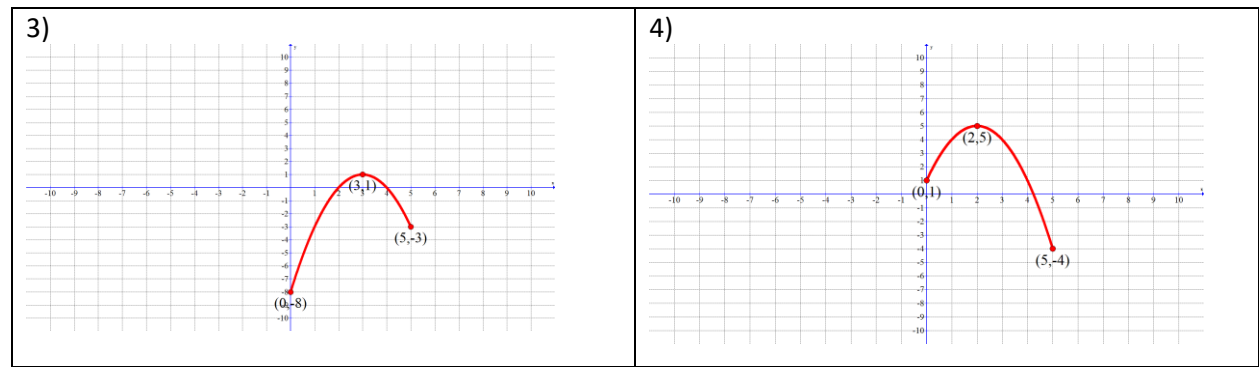
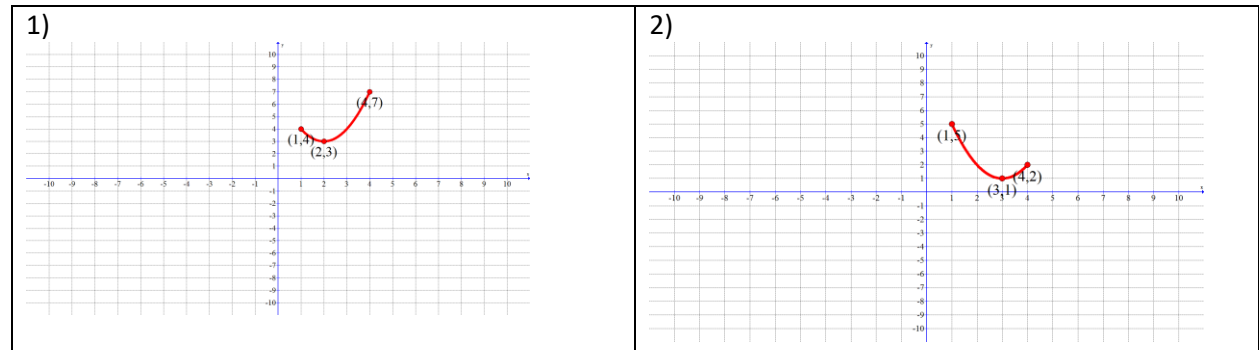
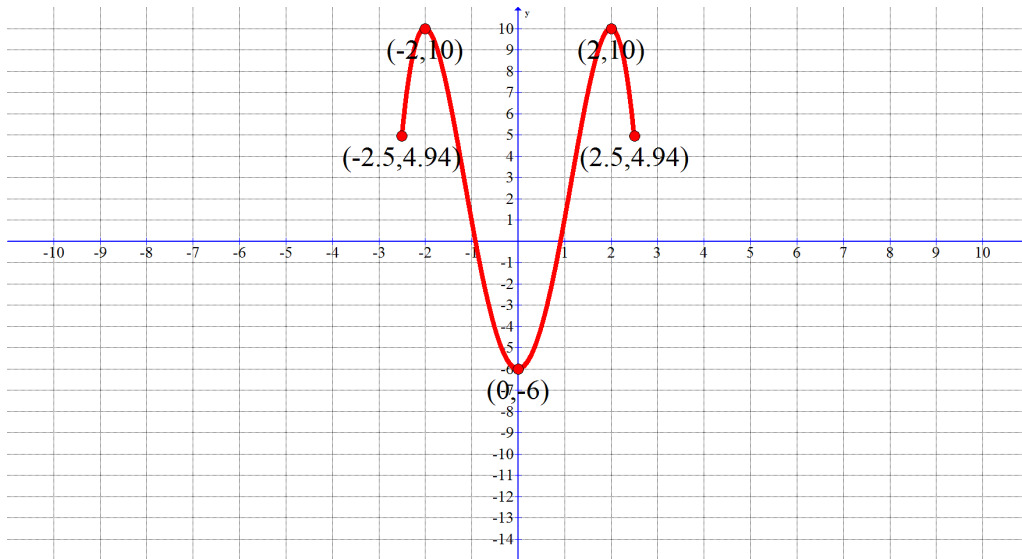


Section 4.1 Absolute Extrema (Minimum Homework: 1, 3, 5, 7, 9, 11, 13, 17, 19, 23, 25)

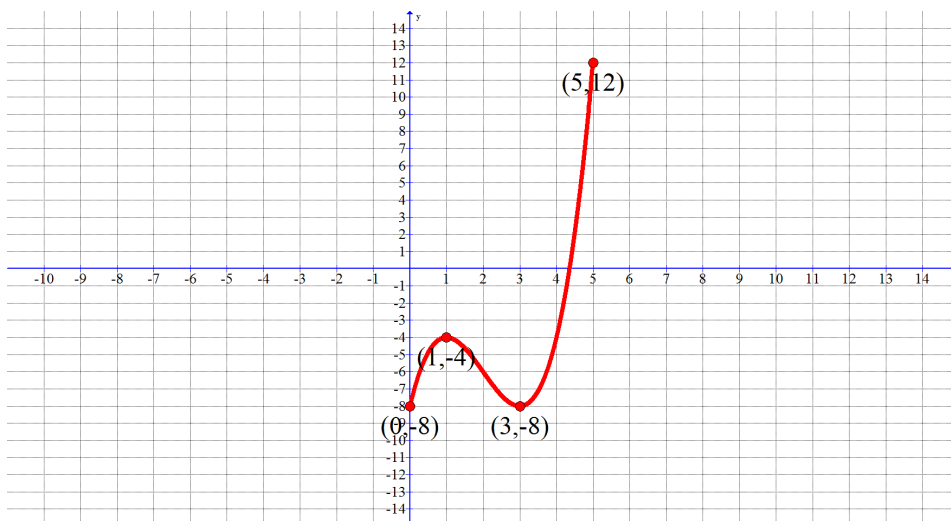
#1-9: Find the absolute maximum and absolute minimum



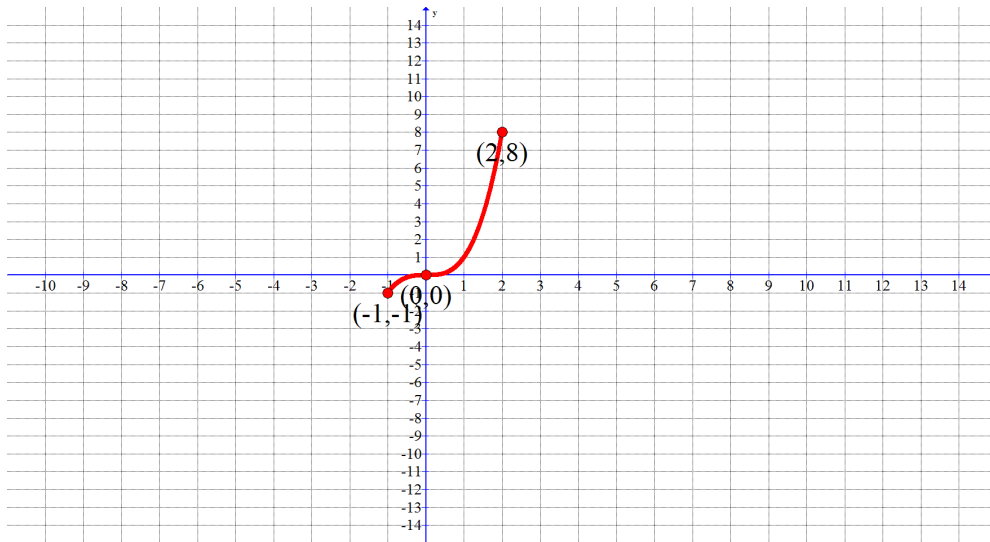
6)



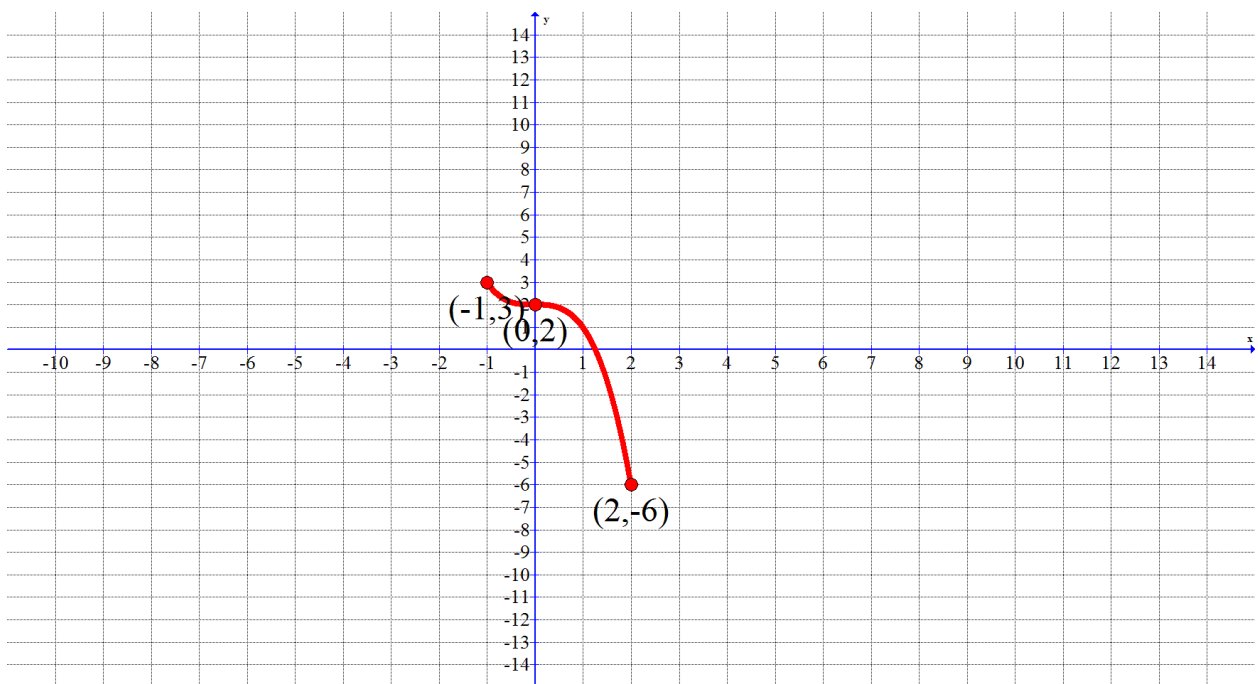
7)



8)



9)



#10-27: Find the absolute maximum and absolute minimum of the function under the given interval.

10)  $f(x) = x^2 - 2x + 5$ ;  $[-3, 3]$

11)  $f(x) = x^2 - 6x + 4$ ;  $[-5, 5]$

12)  $f(x) = x^3 - 6x^2$ ;  $[-2, 2]$

14)  $f(x) = x^3 - 3x^2$ ;  $[-1, 3]$

16)  $f(x) = x^4 - x^3 + 5$ ;  $[-2, 2]$

18)  $f(x) = (x^2 - 9)^4$ ;  $[0, 2]$

20)  $f(x) = \sqrt[3]{x}$ ;  $[-1, 2]$

22)  $f(x) = xe^x$ ;  $[-3, 3]$

24)  $f(x) = e^{3x^2}$ ;  $[-1, 1]$

26)  $f(x) = x^3e^x$ ;  $[-3, 1]$

13)  $f(x) = x^3 + 6x^2$ ;  $[-2, 1]$

15)  $f(x) = x^3 - 3x^2 + 2$ ;  $[-1, 5]$

17)  $f(x) = 3x^4 - 4x^3$ ;  $[-2, 3]$

19)  $f(x) = (x^2 - 16)^3$ ;  $[-2, 2]$

21)  $f(x) = \sqrt[5]{x}$ ;  $[-3, 2]$

23)  $f(x) = 2xe^x$ ;  $[0, 3]$

25)  $f(x) = e^{x^2}$ ;  $[-2, 1]$

27)  $f(x) = x^2e^x$ ;  $[-3, 1]$