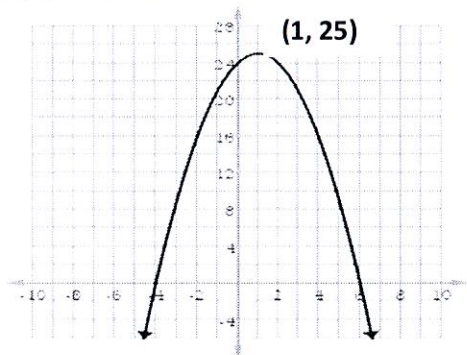


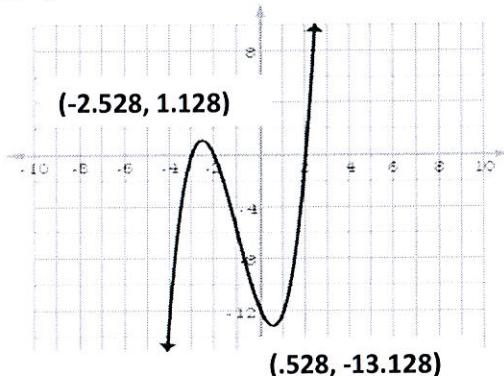
1.  $f(x) = -x^2 + 2x + 24$



Domain:  $(-\infty, \infty)$  Range:  $(-\infty, 25]$   
 INC:  $(-\infty, 1)$  DEC:  $(1, \infty)$   
 REL Max:  $(1, 25)$  REL Min: None  
 ABS Max:  $(1, 25)$  ABS Min: None  
 Zeros:  $(-4, 0)$   $(6, 0)$  Y-Int:  $(0, 24)$   
 Even, Odd, or Neither? Neither

End Behavior:  
 $x \rightarrow \infty f(x) \rightarrow -\infty$   
 $x \rightarrow -\infty f(x) \rightarrow -\infty$

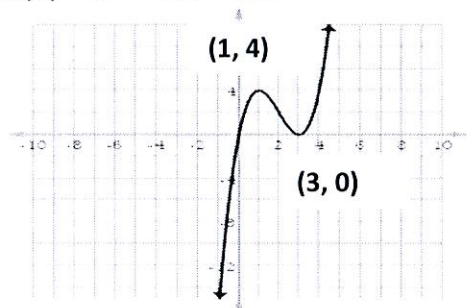
2.  $g(x) = x^3 + 3x^2 - 4x - 12$



Domain:  $(-\infty, \infty)$  Range:  $(-\infty, \infty)$   
 INC:  $(-\infty, -2.528) \cup (0.528, \infty)$  DEC:  $(-2.528, 0.528)$   
 REL Max:  $(-2.528, 1.128)$  REL Min:  $(0.528, -13.128)$   
 ABS Max: None ABS Min: None  
 Zeros:  $(-3, 0)$   $(-2, 0)$   $(2, 0)$  Y-Int:  $(0, -12)$   
 Even, Odd, or Neither? Neither

End Behavior:  
 $x \rightarrow \infty f(x) \rightarrow \infty$   
 $x \rightarrow -\infty f(x) \rightarrow -\infty$

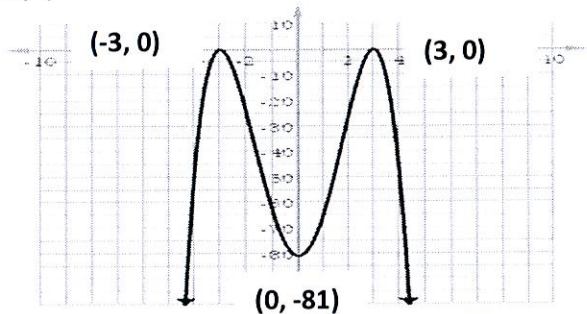
3.  $h(x) = x^3 - 6x^2 + 9x$



Domain:  $(-\infty, \infty)$  Range:  $(-\infty, \infty)$   
 INC:  $(-\infty, 1) \cup (3, \infty)$  DEC:  $(1, 3)$   
 REL Max:  $(1, 4)$  REL Min:  $(3, 0)$   
 ABS Max: None ABS Min: None  
 Zeros:  $(0, 0)$   $(3, 0)$  twice Y-Int:  $(0, 0)$   
 Even, Odd, or Neither? Neither

End Behavior:  
 $x \rightarrow \infty f(x) \rightarrow \infty$   
 $x \rightarrow -\infty f(x) \rightarrow -\infty$

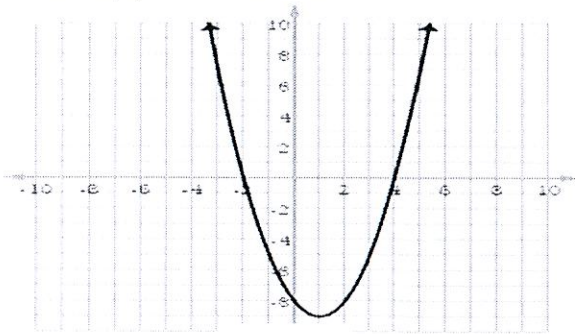
4.  $k(x) = -x^4 + 18x^2 - 81$



Domain:  $(-\infty, \infty)$  Range:  $(-\infty, 0]$   
 INC:  $(-\infty, -3) \cup (0, 3)$  DEC:  $(-3, 0) \cup (3, \infty)$   
 REL Max:  $(-3, 0)$   $(3, 0)$  REL Min:  $(0, -81)$   
 ABS Max:  $(-3, 0)$   $(3, 0)$  ABS Min: None  
 Zeros:  $(-3, 0)$  twice  $(3, 0)$  twice Y-Int:  $(0, -81)$   
 Even, Odd, or Neither? Even

End Behavior:  
 $x \rightarrow \infty f(x) \rightarrow -\infty$   
 $x \rightarrow -\infty f(x) \rightarrow -\infty$

5.  $f(x) = x^2 - 2x - 8$

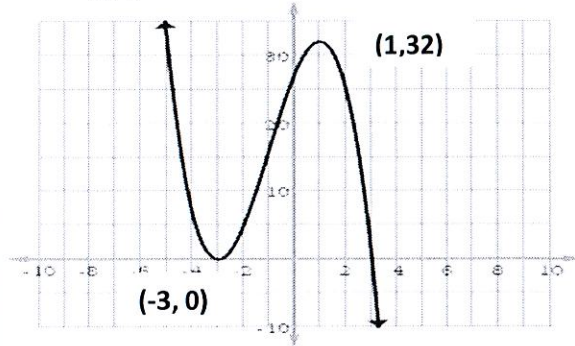


(1, -9)

Domain:  $(-\infty, \infty)$  Range:  $[-9, \infty)$   
 INC:  $(1, \infty)$  DEC:  $(-\infty, 1)$   
 REL Max: None REL Min:  $(1, -9)$   
 ABS Max: None ABS Min:  $(1, -9)$   
 Zeros:  $(-2, 0)$   $(4, 0)$  Y-Int:  $(0, -8)$   
 Even, Odd, or Neither? Neither

End Behavior:  
 $x \rightarrow \infty f(x) \rightarrow \infty$   
 $x \rightarrow -\infty f(x) \rightarrow \infty$

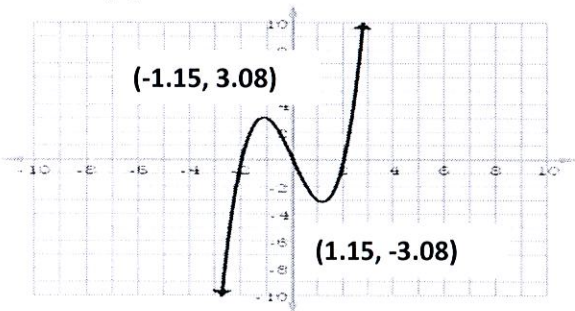
6.  $g(x) = -x^3 - 3x^2 + 9x + 27$



Domain:  $(-\infty, \infty)$  Range:  $(-\infty, \infty)$   
 INC:  $(-3, 1)$  DEC:  $(-\infty, -3) \cup (1, \infty)$   
 REL Max:  $(1, 32)$  REL Min:  $(-3, 0)$   
 ABS Max: None ABS Min: None  
 Zeros:  $(-3, 0)$   $(3, 0)$  Y-Int:  $(0, 27)$   
 Even, Odd, or Neither? Neither

End Behavior:  
 $x \rightarrow \infty f(x) \rightarrow -\infty$   
 $x \rightarrow -\infty f(x) \rightarrow \infty$

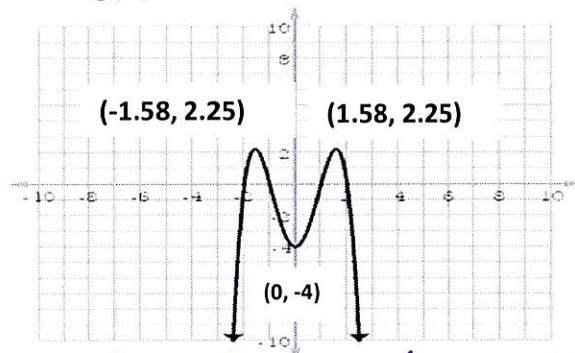
7.  $f(x) = x^3 - 4x$



Domain:  $(-\infty, \infty)$  Range:  $(-\infty, \infty)$   
 INC:  $(-\infty, -1.15) \cup (1.15, \infty)$  DEC:  $(-1.15, 1.15)$   
 REL Max:  $(-1.15, 3.08)$  REL Min:  $(1.15, -3.08)$   
 ABS Max: None ABS Min: None  
 Zeros:  $(-2, 0)$   $(0, 0)$   $(2, 0)$  Y-Int:  $(0, 0)$   
 Even, Odd, or Neither? Odd

End Behavior:  
 $x \rightarrow \infty f(x) \rightarrow \infty$   
 $x \rightarrow -\infty f(x) \rightarrow -\infty$

8.  $g(x) = -x^4 + 5x^2 - 4$



Domain:  $(-\infty, \infty)$  Range:  $(-\infty, 2.25]$   
 INC:  $(-\infty, -1.58) \cup (0, 1.58)$  DEC:  $(-1.58, 0) \cup (1.58, \infty)$   
 REL Max:  $(-1.58, 2.25)$   $(1.58, 2.25)$  REL Min:  $(0, -4)$   
 ABS Max:  $(\pm 1.58, 2.25)$  ABS Min: None  
 Zeros:  $(\pm 2, 0)$   $(\pm 1, 0)$  Y-Int:  $(0, -4)$   
 Even, Odd, or Neither? Even

End Behavior:  
 $x \rightarrow \infty f(x) \rightarrow -\infty$   
 $x \rightarrow -\infty f(x) \rightarrow -\infty$