Transitions to College Mathematics
Review 3.3

Name Key

SHOW ALL WORK!

1. The point (2, 3) is on the graph of $y = f(x)$. Find a point that must be on the graph of $y = f(x) - 3$.

   DOWN 3 (2,0)

2. The point (2, 3) is on the graph of $y = f(x)$. Find a point that must be on the graph of $y = f(x-3)$.

   RIGHT 3 (5,3)

3. Determine whether the function is even, odd, or neither

   $f(x) = x^2 + x - 5$

   $f(-x) = (-x)^2 + (-x) - 5$
   $= x^2 - x - 5$

   $-f(x) = -(x^2 + x - 5)$
   $-f(x) = -x^2 - x + 5$

   Neither

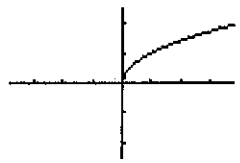
4. Determine whether the function is even, odd, or neither

   $f(x) = \sqrt{x^3 + 3}$

   $f(-x) = \sqrt{(-x)^3 + 3} = \sqrt{-x^3 + 3}$ $\quad -f(x) = -\sqrt{x^3+3}$ Neither

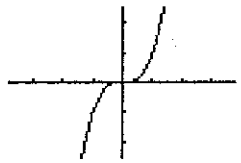
5. Determine whether the function is even, odd, or neither

a.)



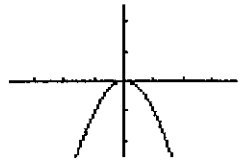
Neither

b.)



odd

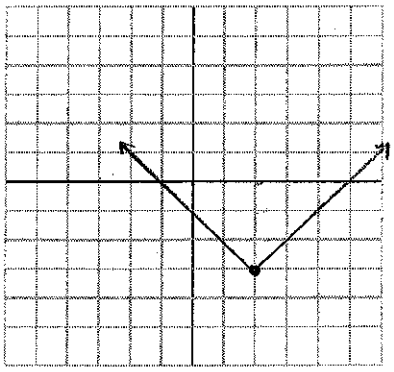
c.)



Even

6. Graph $f(x) = |x-2| - 3$.

   RIGHT DOWN



7. Graph $f(x) = -(x+1)^2 + 4$.

   FLIP LEFT UP