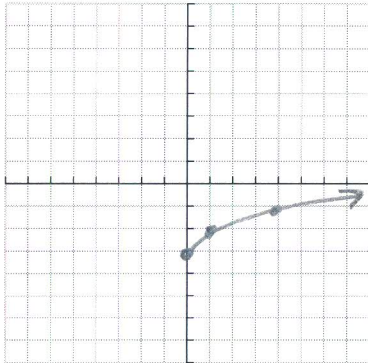


**PART 4:**

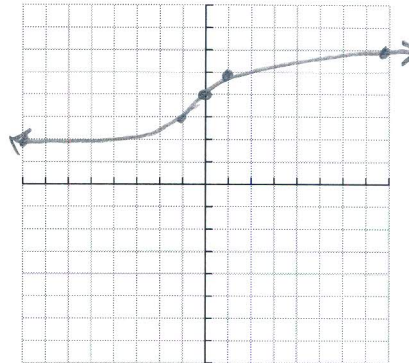
Graph the following radical functions using transformations. Identify the domain and range of each.

a.  $f(x) = \sqrt{x} - 3$



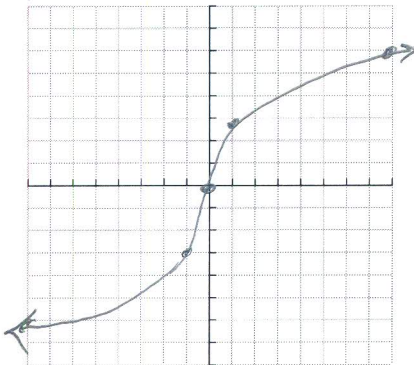
domain:  $[0, \infty)$   
range:  $[-3, \infty)$

b.  $f(x) = \sqrt[3]{x} + 4$



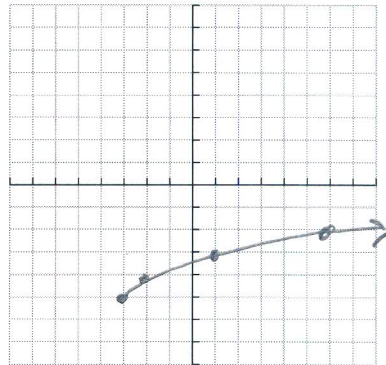
domain:  $\mathbb{R}$   
range:  $\mathbb{R}$

c.  $f(x) = 3\sqrt[3]{x}$



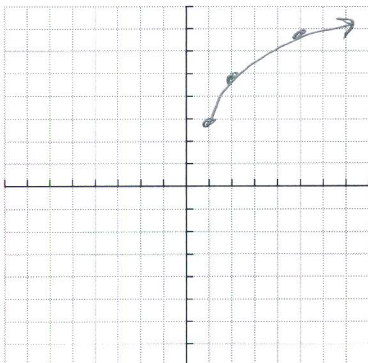
domain:  $\mathbb{R}$   
range:  $\mathbb{R}$

d.  $f(x) = \sqrt{x+3} - 5$



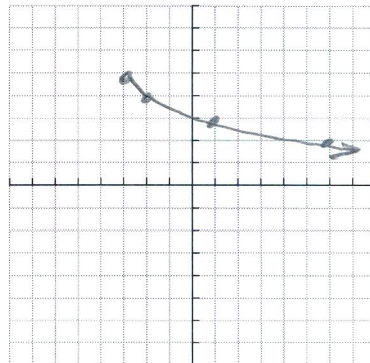
domain:  $[-3, \infty)$   
range:  $[-5, \infty)$

e.  $f(x) = 2\sqrt{x-1} + 3$



domain:  $[1, \infty)$   
range:  $[3, \infty)$

f.  $f(x) = -\sqrt{x+3} + 5$



domain:  $[-3, \infty)$   
range:  $[-\infty, 5]$

When you finish ... send one member of your group to **STATION #4** to check your graphs. Make corrections, if necessary, before doing your homework.