Functions and Domain

1. What is a function? How can we inspect a graph and determine whether it is a function?

2. Find the domain of the following functions:
   a. $y = 3x^3 - 4x^2 - 3x + 5$

   b. $y = \sqrt{25 - x^2}$

   c. $y = \frac{x-4}{x^2-16}$

   d. $y = \frac{2}{\sqrt{25-x^2}}$

3. How can we determine whether a graph is invertible by inspection?

4. Find the inverse of $y = \frac{5}{7}x + 2$.