MA 103   Relations and Functions
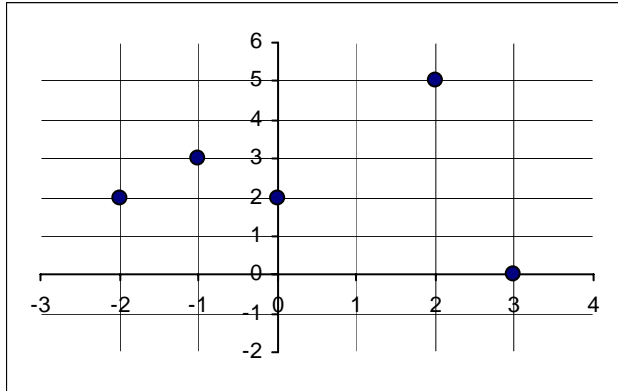Sections 1.5, 2.1

1.   Determine the domain, range and intercepts of each relation graphed below, and state
        whether the graph represents a function.

(a)

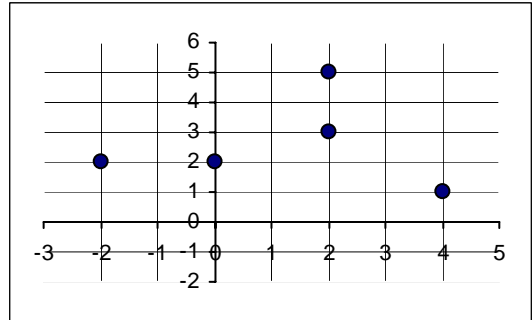Domain: Range:

x-intercept(s):   y-intercept(s):
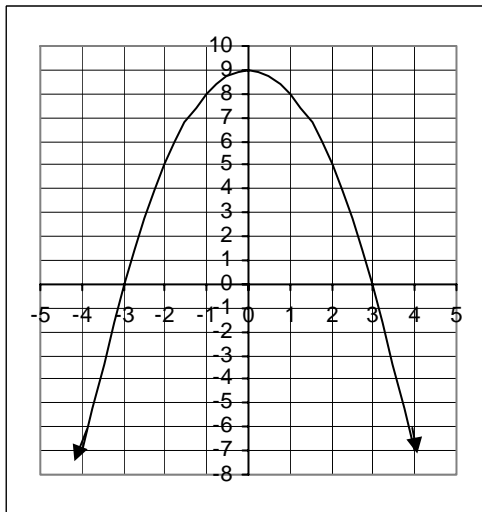
Is it a function?

(b)

Domain: Range:

x-intercept(s):   y-intercept(s):

Is it a function?

(c)

Domain: Range:

x-intercept(s):   y-intercept(s):

Is it a function?

(d)

Domain: Range:
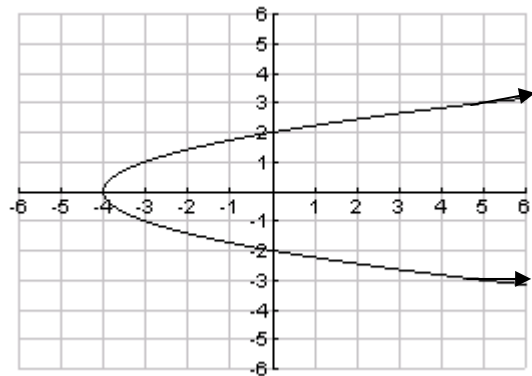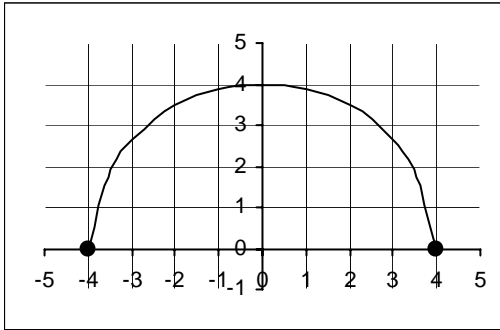
x-intercept(s):   y-intercept(s):

Is it a function?

(e)

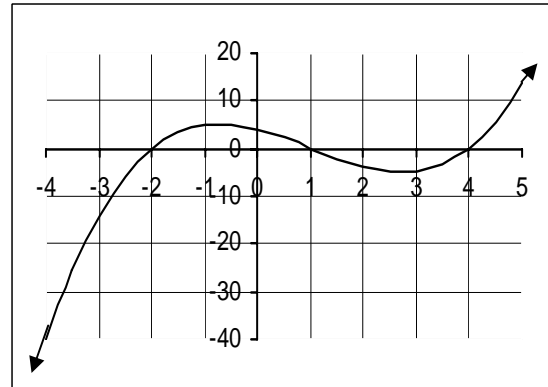Domain: Range:

x-intercept(s):   y-intercept(s):

Is it a function?

(f)

Domain: Range:

x-intercept(s):   y-intercept(s):

Is it a function?

2. For each graph that represents a **function** in #1 above, estimate $f(0)$, $f(3)$, and $f(-2)$.

3. Let $f(x) = x^2 - 3$.

(a) Find $f(4)$.   (b) Find $f(-2)$.

(c) Are there any x-values for which it is not possible to evaluate the function?

4. Let $f(x) = \dfrac{4}{x-3}$.

(a) Find $f(5)$.   (b) Is it possible to find $f(3)$? Why or why not?

(c) Are there any other x-values for which it is not possible to evaluate the function?