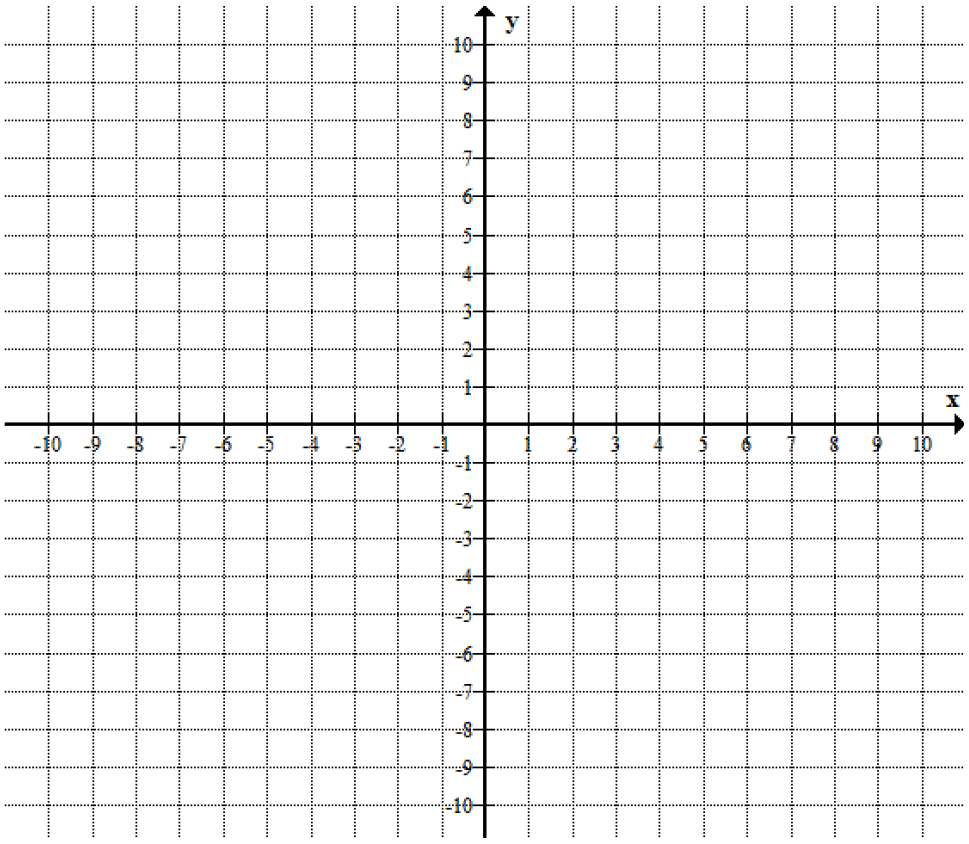
Basic Graphing Review – Know these base functions and their graphs so you are able to apply transformations on them in the course.

- Label the *x*- and *y*- axis
- Make a table of values
- Plot the point on your grid
- Draw a line or smooth curve
- Domain: the set of *x* values valid in the equation
- Range: the set of *y* values valid in the equation

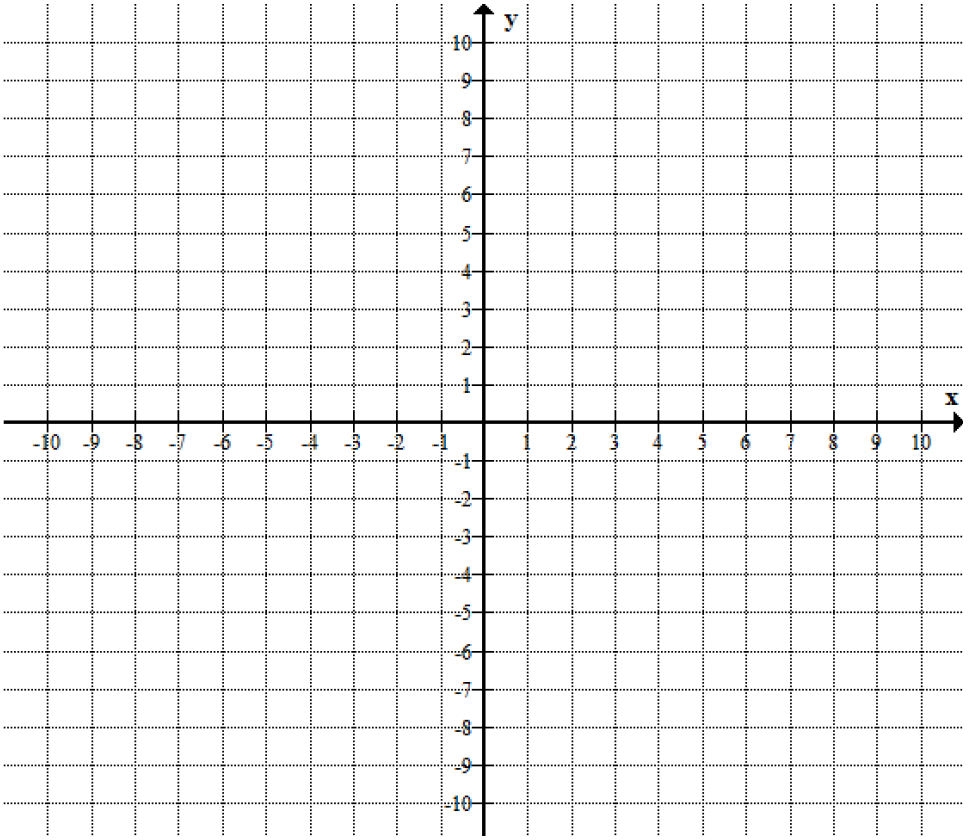
Use Set Notation for writing domain and range:
$\{x \mid x \in R\}$ means *x* is in the set of real numbers
$\{y \mid y \in R\}$ means *y* is in the set of real numbers
Use the following symbols:
$\leq$ for less than and equal to; < for only less than
$\geq$ for greater than and equal to: > for only greater than
$\neq$ for not equal to

When graphing, start with a table of values. Look at restrictions and use your graphing calc to verify.

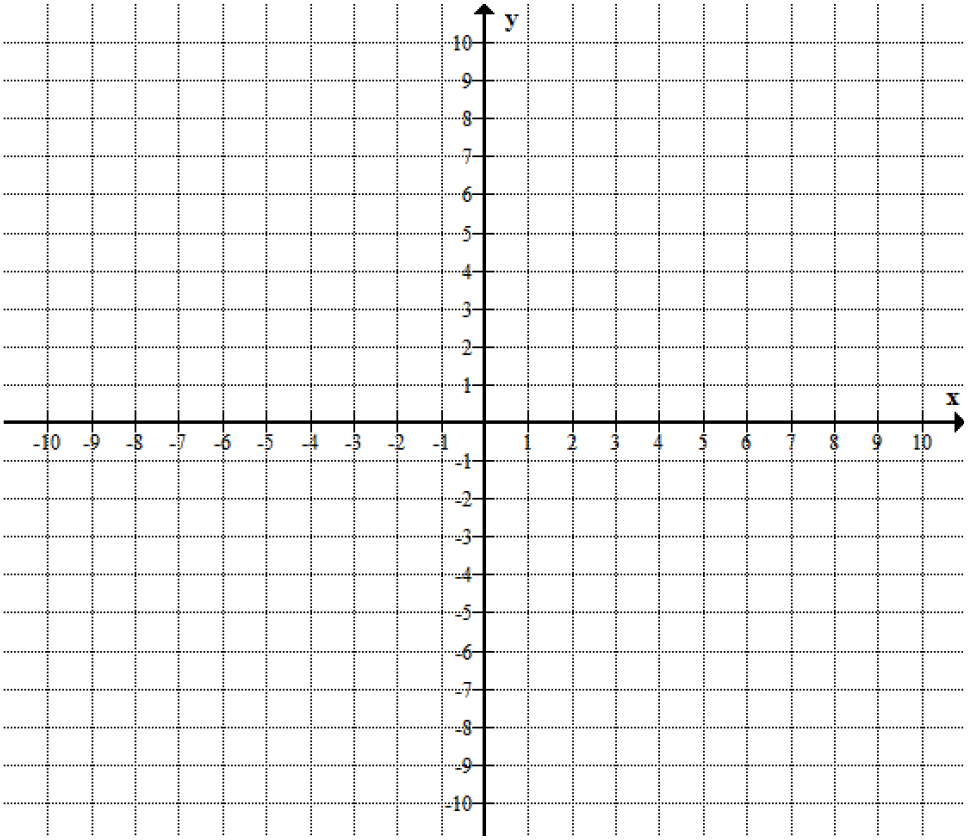
1. Graph: $y = x$



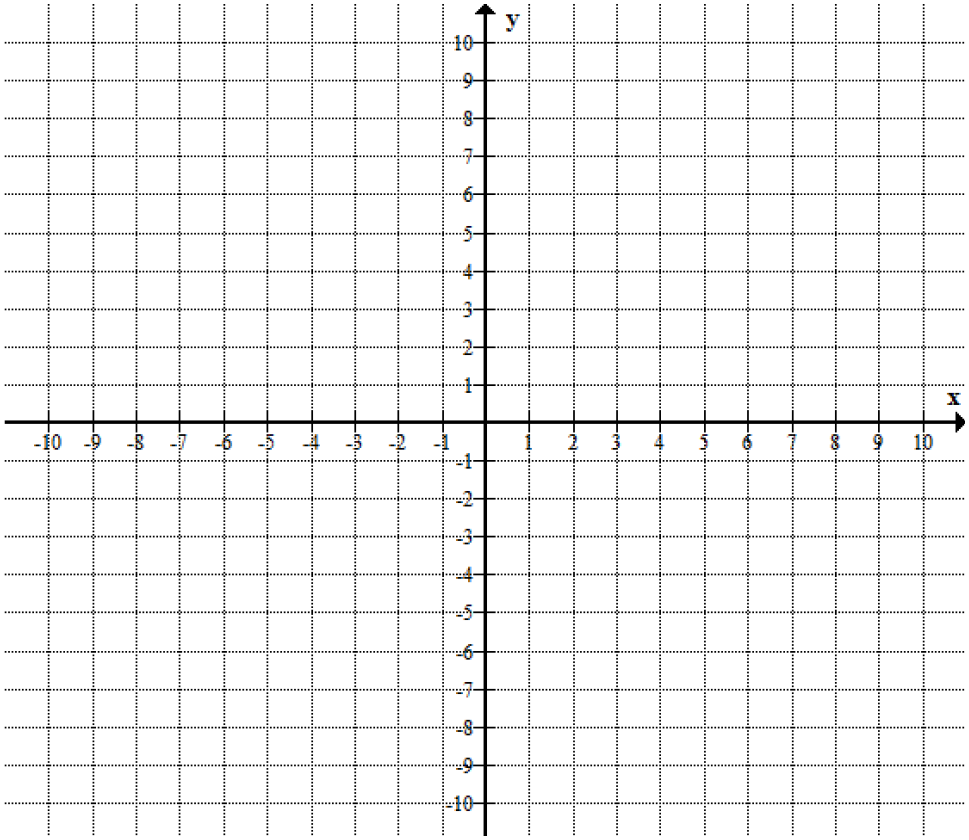
2. Graph: $y = x^2$



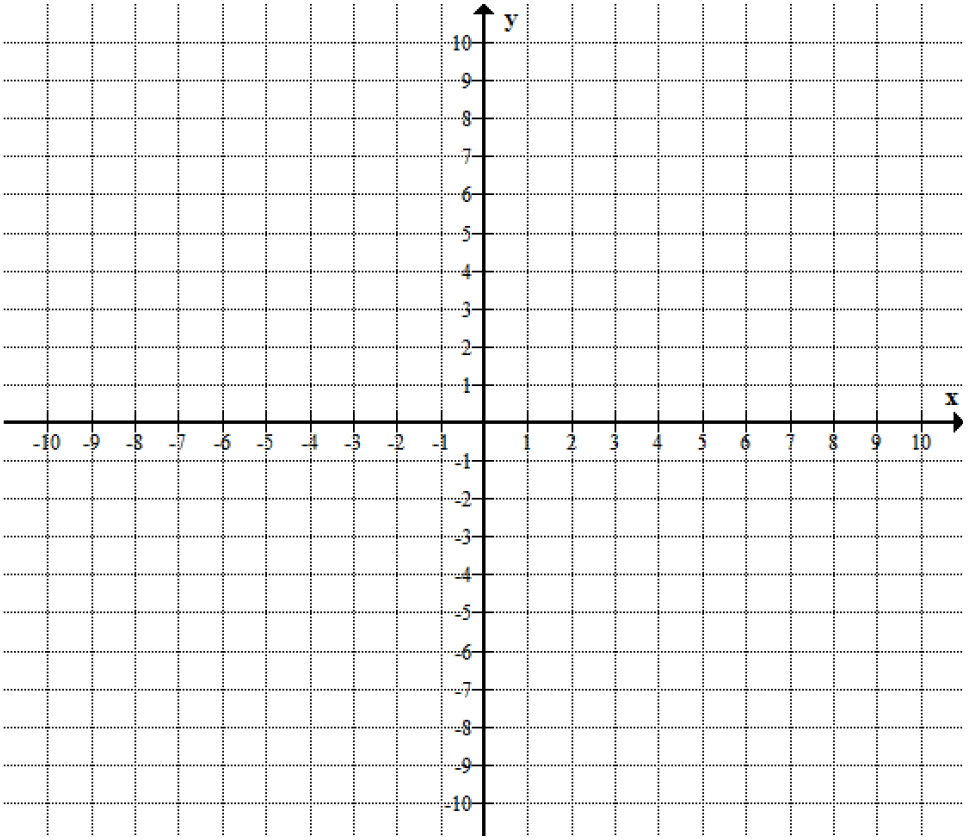
3. Graph: $y = \sqrt{x}$



4. Graph: $y = x^3$



5. Graph: $y = |x|$



6. This is the graph of $y = f(x)$. List 4 or 5 points on this graph in the table of values.