

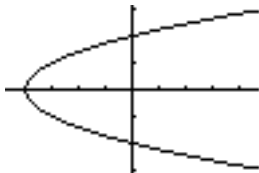
## College Algebra

## Identifying Functions

Each of the following shows a relationship between two variables  $x$  (the independent variable) and  $y$  (the dependent variable). The relationship is given either as a rule, a graph, or a table. If the relationship is a function of  $y$  with respect to  $x$ , then "circle" the number of the relationship. If the relationship is **not** a function of  $y$  with respect to  $x$ , then put an "X" through the number. You need to be able to justify your answers!

1.  $y = \frac{2x}{x-1}$

2.



3.

|   |    |    |    |   |   |   |   |
|---|----|----|----|---|---|---|---|
| X | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Y | 4  | 4  | 4  | 4 | 4 | 4 | 4 |

4.  $y = \sqrt{9-x^2}$

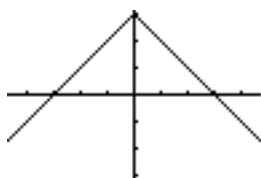
5.

|   |    |    |    |   |   |   |   |
|---|----|----|----|---|---|---|---|
| X | 3  | 2  | 1  | 0 | 1 | 2 | 3 |
| Y | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

6.  $3x + y^2 = 6$

7.  $x = y^3$

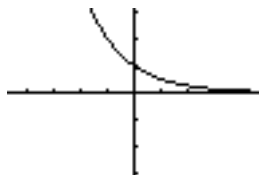
8.



9.

|   |    |    |    |   |    |    |    |
|---|----|----|----|---|----|----|----|
| X | -3 | -2 | -1 | 0 | 1  | 2  | 3  |
| Y | -9 | -4 | -1 | 0 | -1 | -4 | -9 |

10.



11.  $x = y^4$

12.

|   |     |     |     |   |    |    |    |
|---|-----|-----|-----|---|----|----|----|
| X | -3  | -2  | -1  | 0 | -1 | -2 | -3 |
| Y | 1/8 | 1/4 | 1/2 | 1 | 2  | 4  | 8  |