**Function Practice**

**1.** On graph paper, draw a graph that is a function that satisfies the following conditions:

* the domain falls between -3 and 5
* the range falls between -4 and 4
* includes the points (-2, 3) and (3, -2)

**2.** On graph paper, draw a graph that is *not* a function that satisfies the following conditions:

* the domain falls between -3 and 5
* the range falls between -4 and 4
* includes the points (-2, 3) and (3, -2)

**3.** Complete the table of values for each question. Let x represent the input values and y represent the output values. Graph the points and determine whether or not the equation describes a function. Explain your reasoning.

1. $x-3y=5$

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***x*** | 2 |  | -4 |  | 0 |  |
| ***y*** |  | 1 |  | -2 |  | 0 |

1. $y=2x^{2}+1$

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***x*** | -2 | 3 | 0 | -3 | -1 | Be careful when taking square roots – there are two possible values! |
| ***y*** |  |  |  |  |  | 9 |

1. $x+y^{2}=2$

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***x*** | -7 |  |  |  | -2 | 2 |
| ***y*** |  | 1 | -2 | -3 |  |  |

1. $x+2y=4x$

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| ***x*** |  |  |  |  |  |  |
| ***y*** |  |  |  |  |  |  |