Find the range of each function when the domain is {–4, –1, 0, 3}.

1. y = 6x – 5 2. y = |x| – 2 3. y = –x2 – x

Use a mapping diagram to determine whether each relation is a function.

1. {(1, 2), (2, 3), (3, 4), (4, 5), (5, 6)}
2. {(5, 2), (1, 3), (4, 7), (5, 6), (0, 4)}

Evaluate each function rule to find the range for the domain {1, 4, 9}.

1. The function f(x) = 20 – x represents the amount of change you receive after paying for an item that costs x dollars with a $20 bill.
2. The function f(x) = x2 represents the area of a square with a side length of x.

**Write a function rule that represents each sentence.**

1. 10 more than two times x is y
2. 5 less than the quotient of a number n and 4 is m
3. 10 less than the product of a number y and -2 is z

**Determine whether the relations below are functions. If they are, write a rule. Then graph the functions.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **X** | **0** | **1** | **2** | **3** |
| **Y** | **0** | **-3** | **-6** | **-9** |

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **X** | **2** | **0** | **-1** | **-1** |
| **Y** | **-6** | **0** | **-1** | **-5** |

**For the following relations, write a rule that represents the function.**

1. {(0, 8), (1, 6), (2, 4), (3, 2), (4, 0)
2. {(0, 1), (1, 3), (2, 9), (3, 27), (4, 81)}
3. {(0, 2), (1, 1), (2, 0), (3, -1), (4, -2)}



