

Name \_\_\_\_\_

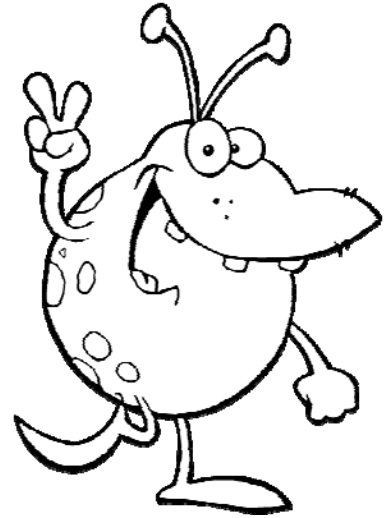
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## Functions versus Relations (Solutions Included) - Step-by-Step Lesson

Determine if the relation is a function.

Make sure to identify the domain and range.

$(-5,2), (4,6), (7,9), (11,4)$



### Explanation:

**A relation is characteristic between two or more data sets that you can compare. (Such as x values or y values.)**

**A function is a patterned relation in which the x value of every ordered pair only has one y value associated with it.**

**All functions are relations, but not all relations are functions.**

If we check the ordered pairs we can determine if every x value maps to just one y value.

$(-5,2), (4,6), (7,9), (11,-4)$

The Domain tracks to the x value  $(-5,2), (4,6), (7,9), (11,-4)$

$$D = (-5,4,7,11)$$

Range is the y value  $(-5,2), (4,6), (7,9), (11,-4)$

$$R = (-4,2,6,9)$$

We can see that every x value has a different y value.

So, this is a function,  $D = (-5,4,7,11)$ ,  $R = (-4,2,6,9)$

