Possible Solutions

There are so many solutions to this problem, since it is open ended and includes a set of numbers. Here are some common solutions and why they work.

- Integers are whole values, but can be positive or negative, and are a subset of rational numbers, as shown in the diagram. Since x is included in both the set of integers AND rational numbers, x can only have a whole value. The possible solutions here are:
- X <u>can</u> be ANY whole amount, either positive or negative. There are an infinite amount of possibilities. In order for these amounts to also be rational numbers, all we would do is turn that amount into a fraction, where both a and b are both integers. For example, -6 would be a correct answer because it is an integer, and we can turn it into a rational number by portraying it as a fraction - $\frac{6}{1}$.
- X <u>cannot</u> be any value that is already expressed as part of a whole (ex. Fractions or decimals).