
For each of the following problems, circle T if the statement is always true and F if the statement is sometimes false. There is no partial credit on this part of the quiz.

1. T F “James Garfield was president of the United States in 1881” is a statement.
This is true. We can check to see if Garfield was the president in that year.
2. T F “Where are you going today?” is a statement.
This is false. It is not a declarative statement.
3. T F “Every natural number is an integer” is a true statement.
This is true. All natural numbers are integers, so this statement is true.
4. T F “Some rational numbers are not integers” is a false statement.
This is true. For instance, the rational number $\frac{1}{2}$ is not an integer.
5. T F “Einstein was a physicist or π is rational” is a true statement.
This is true. For an “or” statement to be true, we need at least one part to be true. The first part is true, making this statement true.

Complete the following problems. Find a (useful) negation of each of the following statements:

6. Every dog has its day.
Some dogs don't have their days.
7. Some people have all the luck.
No people have all the luck.
8. Either Shakespeare wrote sonnets or this poem exhibits iambic pentameter.
Shakespeare wrote sonnets and this poem does not exhibit iambic pentameter.