

1. Determine if the following sentence is a statement or not.

Just take it easy, man.

- A. Is a statement.
- B. Not a statement.

2. Classify the following statement as a conjunction, disjunction, conditional, or biconditional.

A natural number is even if and only if it is divisible by 2.

- A. Disjunction
- B. Conditional
- C. Biconditional
- D. Conjunction

3. Let p be the statement “The bus is on time,” and q be the statement “The roads are clear.” Write the statement in

$$\sim p \wedge \sim q$$

in words.

- A. If the roads are clear, then the bus is not on time.
- B. The bus is not on time or the roads are clear.
- C. The bus is on time, and the roads are clear.
- D. If the roads are clear, then the bus is on time.
- E. The bus is on time if and only if the roads are clear.
- F. The bus is not on time or the roads are not clear.
- G. If the bus is on time, then the roads are clear, or the bus is not on time.
- H. The bus is not on time and the roads are not clear.

4. Identify the quantifier in the following statement as either universal or existential.
Not every person named Billy Bob is a monkey’s uncle.

- A. Universal
- B. Existential

5. Determine if the following sentence is a statement or not.

Steve Jobs is the founder of Microsoft.

- A. Is a statement.
- B. Not a statement.

6. Write the negation of the following statement.

Not every person named Billy Bob is a monkey's uncle.

- A. Every person named Billy Bob is a monkey's uncle.
- B. Every person named Billy Bob might be a monkey's uncle.
- C. Not every person named Billy Bob is a not monkey's uncle.
- D. Every person named Billy Bob is a not monkey's uncle.

7. Write the negation of the following statement.

Some students can't afford to buy a tablet.

- A. Some students can afford to buy a tablet.
- B. Some students can't afford to buy a desktop or a smartphone.
- C. Every student can't afford to buy a tablet.
- D. Every student can afford to buy a tablet.

8. Decide if the statement is simple or compound.

Billy Bob makes moonshine and rides motorcycles.

- A. Compound
- B. Simple