

2.1 Puzzle Time

What Is Smarter Than A Talking Bird?

Write the letter of each answer in the box containing the exercise number.

Complete the sentence.

- L 1. A conditional statement, symbolized by $p \rightarrow q$, can be written as an "if-then" statement in which p is the hypothesis.
- E 2. A conditional statement, symbolized by $p \rightarrow q$, can be written as an "if-then" statement in which q is the conclusion.
- S 3. You can determine the conditions under which a conditional statement is true by using a truth table.
- E 4. A conditional statement of "If p , then q " is expressed symbolically as $p \rightarrow q$.
- L 5. A conditional statement that is expressed as "If q , then p " is called the converse.
- P 6. If p = "you are a baseball player" and q = "you are an athlete," the following statement "If you are *not* a baseball player, then you are *not* an athlete" would be called a(n) inverse.
- I 7. A biconditional statement is a statement that contains the phrase "if and only if."
- A 8. If both p and q of the converse are negated, it is called a contrapositive.

Use this statement. "If (a) you are a vegan, then (b) you eat vegetables" to answer the question.

- G 9. What part is the hypothesis? (a) or (b) (a)
- E 10. Part (a) is the conclusion? yes or no no

Complete the sentence.

- N 11. The negation of "math is not fun" would be "math is fun."
- B 12. "If and only if a polygon has three sides, it is a triangle" is a biconditional statement. True or false?

8		3	6	4	1	5	7	11	9		12	2	10
A		S	P	E	L	L	I	N	G		B	E	E

Answers

- G. (a)
- E. no
- H. conditional
- A. yes
- E. $p \rightarrow q$
- T. triconditional
- I. biconditional
- O. false
- L. hypothesis
- A. contrapositive
- N. math is fun
- Y. postulate
- P. inverse
- R. truth value
- O. introversion
- B. true
- L. converse
- E. conclusion
- M. math is boring
- S. truth table
- Y. (b)