

## Determine Truth Values- Answer Key

- 1) Is the statement, "If  $63 = (7)(2)$ , then cats baaw and  $18=(6)(8)$ " true or false?  
True
- 2) Is the negation of the statement, "If  $9 + 1 = 10$ , then  $6 + 3 = 18$ " true or false?  
True
- 3) If p is "even numbers are multiples of 2", q is "frogs ribbit" and r is "27 is the square of 3" what is the truth value of  $p \rightarrow (q \wedge r)$ ?  
False
- 4) If p is "squares have 4 sides" and q is "sheep baaw" what is the truth value of  $p \vee q$ ?  
True
- 5) If p is "cats meow" and q is "sheep baaw". Then what is the truth value of  $\sim(p \wedge q)$ ?  
False
- 6) If p is "lions roar", q is "sheep ribbit" and r is "owls hoot". Then what is the truth value of  $(p \wedge q) \vee r$ ?  
True
- 7) Determine the truth value of: "If even numbers are multiples of 2, then triangles have 4 vertices or  $-2 = 5 - 7$ ".  
True
- 8) Determine the truth value of the statement: " $3 + 6 = 9$  and  $7 + 1 = 8$ ."  
True
- 9) If p is "frogs ribbit" and q is "lions hoot". Then what is the truth value of  $\sim(p \vee q)$ ?  
False
- 10) If p is "lions hoot" and q is "owls quack". Then what is the truth value of If p, then q?  
True

