

Geometry

Name _____

2.2 Logic

Date _____ Hour _____

Use the following statements to find the truth value for questions 1 – 4.

p: $\sqrt{-64} = 8$

q: A triangle has three sides.

r: $0 < 0$

s: An obtuse angle measures between 90 and 180 degrees.

1) q and r

2) q or r

3) $\sim q \wedge r$

4) $r \vee p$

5) Determine the truth value for this compound statement. $(\sim p \wedge q) \vee s$

(6-8) In a school of 310 students, 80 participate in clubs, 115 participate in sports, and 20 students do both.

6) Make a Venn diagram of the data.

7) How many students participate in academic clubs or sports?

8) How many students do not participate in either academic clubs or sports?

9) Construct a truth table for the compound statement: $q \wedge \sim r$