

Math 112 - Quiz 7

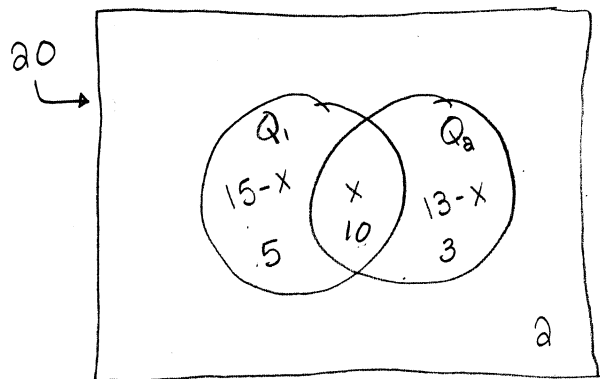
September 26, 2018

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary. This quiz is worth 5 points. YOU MUST WORK INDIVIDUALLY.

1. (2 points) Use a Venn diagram to sort the data and solve the problem: *Out of 20 students taking an exam, 15 answered the first bonus question, 13 answered the second bonus question, and 2 did not attempt either of the two bonus questions. How many students answered both bonus questions?*



$$15 - x + x + 13 - x + 2 = 20$$

$$30 - x = 20$$

$$\Rightarrow x = 10$$

10 STUDENTS

2. (1 point) Determine whether each sentence is a statement.

(a) $9 - 3 = 2$ STATEMENT

(b) Go with the flow. NOT A STATEMENT

3. (2 points) Determine whether each statement is a conjunction, disjunction, conditional, or biconditional.

(a) A number is even if and only if it is divisible by 2. BICONDITIONAL

(b) Either he passes the test, or he fails the course. DISJUNCTION

(c) I will go shopping if I get my bonus money. CONDITIONAL

(d) Bob and Tom like going to the movies. CONJUNCTION