Name ________________________________

Math 221: Basic Concepts of Elementary Mathematics I
Quiz #4
Points: Each problem is worth 4 points.

1. In this problem, the universe (or universal set) is the set of all humans,
   \[ B = \{x \mid x \text{ is a college basketball player}\} \]
   and
   \[ S = \{x \mid x \text{ is a college student more than 200 cm tall}\}. \]
   Which of the following is the set of all college basketball players that are no more than 200 cm tall?
   
   (a) \(\overline{S}\)                        (b) \(B \cap S\)
   (c) \(B \cup S\)                        (d) \(B \cap \overline{S}\)

2. In a fraternity with 32 members, 16 take mathematics, 5 take both mathematics and biology, and 10 take neither mathematics nor biology. How many take biology but not mathematics?
   
   (a) 1                                  (b) 6
   (c) 11                                 (d) 16

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Each multiple choice question in this class will be graded as follows. Your answer should be clearly indicated by a circle around your choice for the answer. Circle the whole answer including the letter. You will get 0 points if a wrong answer is circled (even if a correct answer is also circled), you will get 1 point if no answer is circled, and you will get 4 points for a correct answer. Do not put other marks on or around the choices. If other marks are on or around the choices (for example, if a rectangle is placed around an answer), then you will likely get 0 points for your answer depending solely on what the instructor thinks the marks indicate.