Name_____

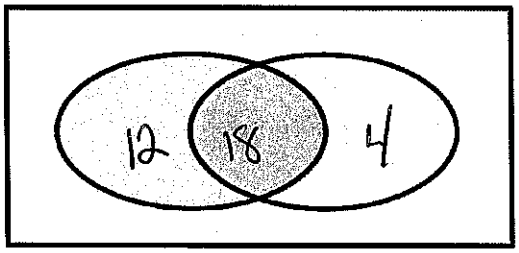
Date_____

Advanced Algebra

Unit 7: Probability- Assignment #13 Venn Diagrams

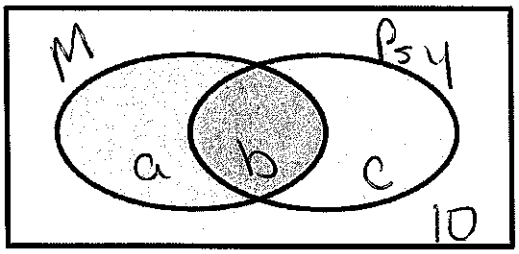
For the following, complete the Venn Diagram and then find values for a through d.

1. In a group of 40 Baboons, 30 enjoy grooming their neighbors, 22 enjoy screeching widely, and 18 enjoy grooming neighbors and screeching wildly.



a. $P(A)$
b. $P(B)$
c. $P(A \cap B)$
d. $P(A \cup B)$

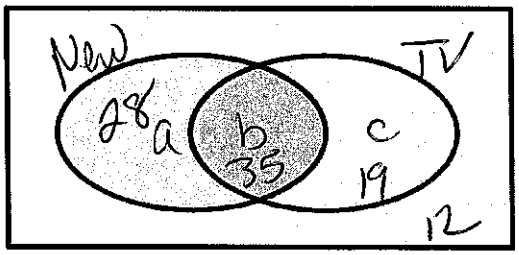
2. In a group of 56 students, 42 take Math, 34 take Psychology and 10 take neither.



a. $P(A)$ $\frac{42}{56}$
b. $P(B)$ $\frac{34}{56}$
c. $P(A \cap B)$ $\frac{30}{56}$
d. $P(A \cup B)$ $\frac{46}{56}$

$a+b+c=46$
$a+b=42$
$b+c=34$
$c=4$

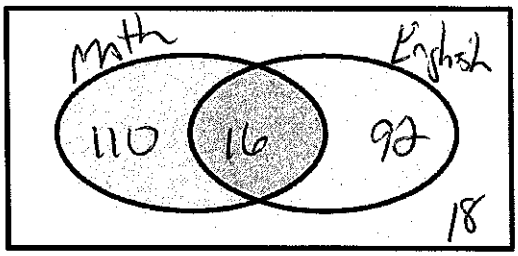
3. A survey of 94 college students was taken to determine where they got the news about what is going on in the world. 63 students got the news from newspapers, 54 from television, and 12 from neither..



a. $P(A)$ $\frac{63}{94}$
b. $P(B)$ $\frac{54}{94}$
c. $P(A \cap B)$ $\frac{35}{94}$
d. $P(A \cup B)$ $\frac{82}{94}$

$a+b+c=82$
$a+b=63$
$b+c=54$
$c=19$

4. A survey of 236 college students was taken at registration. Of those surveyed, 126 students registered for a math course, 108 for an English course and 16 for both math and English.



a. $P(A)$ $\frac{126}{236}$
b. $P(B)$ $\frac{108}{236}$
c. $P(A \cap B)$ $\frac{16}{236}$
d. $P(A \cup B)$ $\frac{218}{236}$