

### Quick Hit 5

1. Suppose that you have a universal set,  $U$ , with  $n(U) = 50$ . Suppose also that you have sets  $X$  and  $Y$  with  $n(X) = 25$ ,  $n(Y) = 30$ , and  $n(X \cup Y) = 35$ . Draw a Venn Diagram illustrating the composition of the sets  $U$ ,  $X$ , and  $Y$ . (Your Venn Diagram should have each region labeled with a number indicating how many elements of  $U$  are in that region).

2. Suppose that you have a universal set,  $U$ , with sets  $A$  and  $B$ . You know that  $n(A') = 45$ ,  $n(B) = 20$ ,  $n(A \cup B) = 30$ , and  $n(A \cap B) = 5$ . What is  $n(U)$ ? (*Hint:* Draw a Venn Diagram as in problem 1.)