

Math 1160 - Section 5.2 Answer Key

****Remember to use the Inclusion-Exclusion Principle****

$$n(S \cup T) = n(S) + n(T) - n(S \cap T)$$

2. $n(S \cup T) = \mathbf{21}$ $(17 + 13 - 9)$

4. $n(S \cap T) = \mathbf{1}$ $(15 = 4 + 12 - ?)$

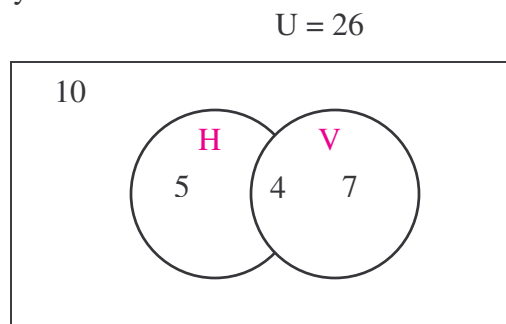
6. $n(T) = \mathbf{6}$ $(14 = 14 + ? - 6)$

10. $n(\text{Taking Math}) = \mathbf{800}$ $(1000 = 600 + ? - 400)$

11. Number of letters with no symmetry = **10**

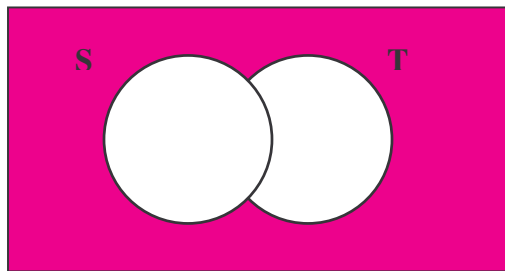
The universal set is all the letters of the alphabet (26).

Complete the counts for each of the 4 regions. Find the count of the region outside the circles.

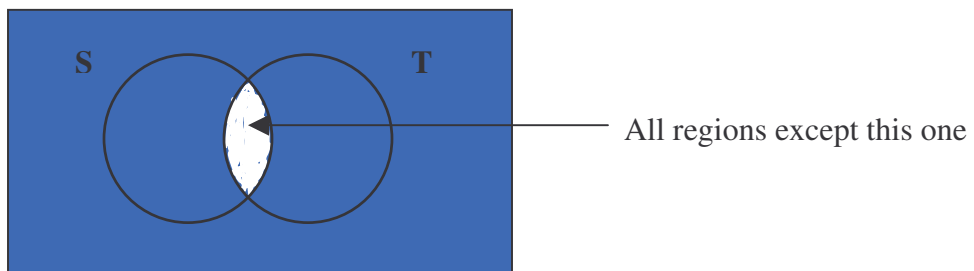


12. $n(\text{Newsweek} \cup \text{Time}) = \mathbf{450}$ $(300 + 200 - 50)$

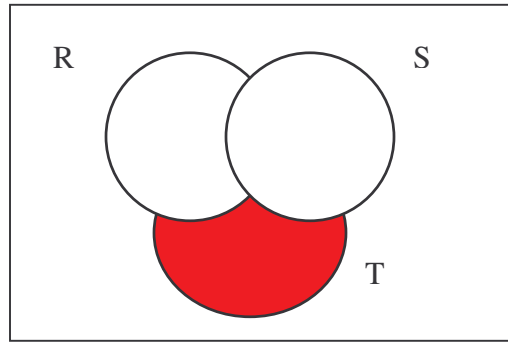
16.



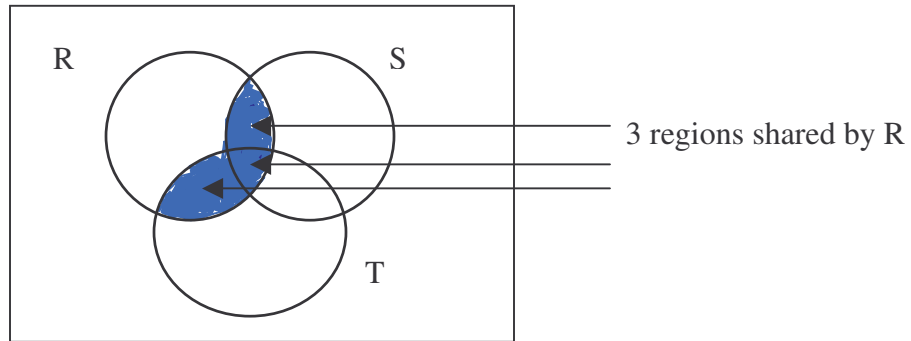
18.



28.



30.



38.

