

Both Newsweek and Time not Fortune,  
 $n(N \cap T) - n(N \cap T \cap F)$

$$= 20 - 8 = 12$$

Both Newsweek and Fortune not Time,  
 $n(N \cap F) - n(N \cap T \cap F)$

$$= 25 - 8 = 17$$

Both Time and Fortune not Newsweek,  
 $n(T \cap F) - n(N \cap T \cap F)$

$$= 15 - 8 = 7$$

$$\text{So, } n(N \cup T \cup F) = 120$$

$$\text{Total numbers} = 28 + 18 + 10 + 12 + 17 + 7 + 8 \\ = 120$$

The sum is 120 which filled the Venn diagram correctly.

(c) From (b) we get,

$$\text{only Time readers} = 18$$

$$\text{only Fortune readers} = 10$$

$$\text{only Newsweek readers} = 28$$

$$\text{People read one magazine only} = 18 + 10 + 28 \\ = 56$$