\[ U = \{ a, \ldots, z \} \quad n(U) = 26 \]
\[ M = \{ m, a, t, h \} \quad n(M) = 4 \]
\[ D = \{ d, a, n, c, e \} \quad n(D) = 5 \]

\[ n(M \cap D) = 1 \]
\[ n(M \cup D) = 8 \neq 5 + 4 \]

\[ M \cup D = \{ m, a, t, h, d, n, c, e \} \]

\[ n((M \cup D)^c) = 26 - 8 = 18 \]

\[ \text{20 Students in class} \]
\[ 7 \text{ North America} \]
\[ 5 \text{ Africa} \]
\[ 3 \text{ both} \]

How many in NA but not Africa? 4

\[ \text{Cakes} = 24 \text{ total} \]

6 C
12 T
15 C

1 C, T \checkmark
2 C, T, not C \checkmark
2 C, not T \checkmark

Total 24

1 + 2 + 2 + 1 + 12 + 12 = 33

But there are only 24.
So 3 got double counts.
Now you can figure what goes in the other blanks.