20.) (a) We will adopt the summation convention and drop the summation signs:

$\epsilon_{ijk}\delta_{ij}$ is a "contraction of an antisymmetric and symmetric object".

δ_{ij} is non-zero (1) only when $i=j$ and that's when $\epsilon_{ijk}=0$. Thus, every term in the sum is zero and the sum is zero.

(b) $\epsilon_{ijk}\epsilon_{ljk}$ for given values of i and l are non-zero only when j and k are both unequal to both i and l. Since all these indices can only have 3 values, non-zero products only arise when $i=l$. In that case there are 2 possible values for j,k; in both cases $\epsilon_{ijk}^2=1$ and we get a sum of products equal to 2. Of course, when $i \neq l$ we get zero. Thus, $\epsilon_{ijk}\epsilon_{ljk} = 2\delta_{il}$.

(c) Summing the above over the 3 possible values of i gives us 3 times the earlier result of 2:

$$\epsilon_{ijk}\epsilon_{ijk} = 3 \times 2 = 6.$$