

$$3|x| + 4|y| + 3|z| \leq 12$$

$$\Rightarrow \boxed{\frac{|x|}{4} + \frac{|y|}{3} + \frac{|z|}{4} \leq 1}$$

Volume of tetrahedron

in first octant = $\frac{1}{6} \times abc = \frac{1}{6} \times 3 \times 4 \times 4$
 $= 8$

Total 8 octant

$$= 8 \times 8 = \boxed{64} \text{ Ans}$$