Since we have to integrate in circle $x^2+y^2=a^2$

we can convert into polar coordinates

$$\Rightarrow \int_{-a}^{a}\int_{-\sqrt{a^2-x^2}}^{\sqrt{a^2-x^2}} \frac{a^2-3(a^2-x^2-y^2)}{\sqrt{a^2-x^2-y^2}}\,dx\,dy$$

$$\Rightarrow \int_0^{2\pi}\int_{r=0}^{a} \frac{a^2-3(a^2-r^2)}{\sqrt{a^2-r^2}} \times r\,dr\,d\theta \Rightarrow \int_0^{2\pi}\int_{r=0}^{a} \frac{a^2 r}{\sqrt{a^2-r^2}} - \int_0^{2\pi}\int_{r=0}^{a} 3\sqrt{a^2-r^2}\times r\,dr\,d\theta$$

you can calculate yourself

$$\Rightarrow \frac{2\pi \times a^2 \times \cancel{2} \times \left[(a^2-r^2)^{1/2}\right]_0^a}{-\cancel{2}} - \frac{\cancel{2}\pi \times \cancel{3} \times 2 \left[(a^2-r^2)^{3/2}\right]_0^a}{-\cancel{2}\times\cancel{3}}$$

$$\cancel{2\pi a^2\left[\sqrt{1+a^2}-1\right] + 2\pi\left[\right.}$$

$$\Rightarrow -2\pi a^2[0-a] + 2\pi[0-a^3]$$

$$\Rightarrow 2\pi a^3 - 2\pi a^3 = 0$$