



Listado 11
Soluciones
Cálculo III (521227)

A.

1. $\frac{7\pi}{6}a^4.$

3. $\frac{\sqrt{3}}{4}.$

5. $\ln \sqrt[3]{128}.$

2. 12.

4. $\frac{21}{2}\left(e - \frac{1}{e}\right).$

6. $\frac{21}{64}.$

B.

1. 32π

7. $\frac{80\pi}{3}$

ii) $\frac{4\pi}{5}abc$

2. $\frac{11\pi}{32}$

8. $\frac{8\pi}{3}$

13. $4\left(\pi - \frac{1}{9}\right)$

3. $\frac{2\pi}{3} - \frac{8}{9}$

9. $\frac{4\pi}{3}$

14. $\frac{32}{3}\left(\frac{\pi}{2} - \frac{2}{3}\right)$

4. i) $\frac{4\pi R^3}{3a}$

10. $\frac{471\pi}{2}$

15. $\frac{16}{3}a^3$

ii) $2\pi R^2$

5. $\pi\left(36\sqrt{2} - \frac{109}{3}\right)$

11. $2\pi \ln\left(\frac{b}{a}\right)$

16. i) $\frac{32}{3}$

ii) 64π

6. $\frac{\pi}{3}H^2(3R - H)$

12. i) $\frac{4\pi}{3}abc$

17. $\frac{8}{15}$