

MATH 200 PROBLEM SET XI ANSWERS

1) $\pi a^2 h$

2 a) $2\pi \frac{a^3}{3} \left(1 - \frac{1}{\sqrt{2}}\right)$

b) $\frac{\pi a^4}{16}$

c) $4\pi A \left(a - \sqrt{B} \tan^{-1} \frac{a}{\sqrt{B}}\right)$

d) $\frac{8}{3}\pi a^3$

3 a) $\frac{\pi}{6} (17^{3/2} - 1)$

b) 4π

c) $\frac{\pi}{6} (17^{3/2} - 5^{3/2})$

4) $M \left(\frac{3}{4}a^2 + b^2\right)$