

MATH 200 PROBLEM SET IX ANSWERS

1 a) $\frac{a^3}{6}[\sqrt{3} + 1]$
b) $\frac{2}{3}$
c) $\frac{1}{3}$
d) $-\pi$

2) $2\pi\left[-\frac{1}{3} - \frac{1}{4} + \frac{1}{3}2^{3/2}\right] \approx 2.26$

3) $\frac{64}{9}a^3$

4) $\frac{\pi}{8}ab$

5) $\frac{128}{15}a^3$

6) 3.5" above the bottom.