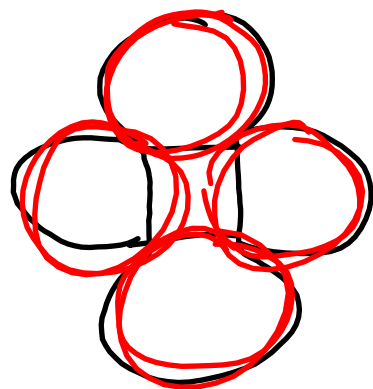


# Surface Area/Volume of Spheres

- Surface Area =  $4\pi r^2$



EX  $\rightarrow r = 3 \text{ cm} \Rightarrow A = 4\pi(3)^2 = 36\pi \text{ cm}^2$

EX  $\rightarrow d = 8 \text{ cm} \Rightarrow A = 4\pi(4)^2 = 64\pi \text{ cm}^2$

EX  $\rightarrow d = 12 \text{ cm} \Rightarrow A = 4\pi(6)^2 = 144\pi \text{ cm}^2$

- Volume =  $\frac{4}{3}\pi r^3$

EX  $\rightarrow r = 3 \text{ in.} \Rightarrow V = \frac{4}{3}\pi(3)^3 = 36\pi \text{ in}^3$

EX  $\rightarrow d = 8 \text{ m} \Rightarrow V = \frac{4}{3}\pi(4)^3 = \frac{256}{3}\pi \text{ m}^3$

EX  $\rightarrow d = 12 \text{ cm} \Rightarrow V = \frac{4}{3}\pi(6)^3 = 288\pi \text{ cm}^3$

HW: p. 737  $\rightarrow$  6-42 even (omit 28), 48, 60