

Circle

$$A = \pi r^2$$

$$C = 2\pi r$$

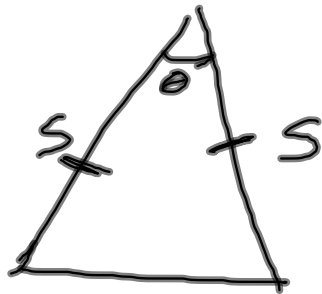
Sphere

$$V = \frac{4}{3}\pi r^3$$

13. $A = \pi r^2$

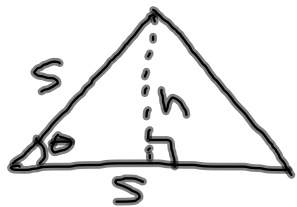
$$\frac{dA}{dt} = 2\pi r \frac{dr}{dt}$$

$$\text{cm} \cdot \frac{\text{cm}}{\text{m}} = \frac{\text{cm}^2}{\text{m}}$$



$$A = \frac{1}{2} s^2 \sin \theta$$

$$A = \frac{1}{2} b \cdot h$$



$$h = s \cdot \sin \theta$$

$$b = s$$

$$A = \frac{1}{2} s \cdot s \cdot \sin \theta$$

$$A = \frac{1}{2} s^2 \sin \theta$$

$$\frac{dA}{dt} = \frac{1}{2} s^2 \cdot \cos \theta \cdot \frac{d\theta}{dt}$$

$$\frac{dA}{dt} = \frac{1}{2} s^2 \cos \frac{\pi}{6} \cdot \frac{1}{2}$$

$$\frac{dA}{dt} = \frac{1}{2} s^2 \frac{\sqrt{3}}{2} \cdot \frac{1}{2}$$

$$\frac{dA}{dt} = \frac{s^2 \sqrt{3}}{8}$$

