

3/16
FRI

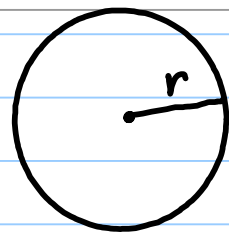
11.6] Area of a Circle

how much flat space there is...

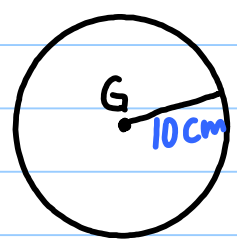
Thm 11.8

$$A = \pi r^2$$

radius



ex 1)



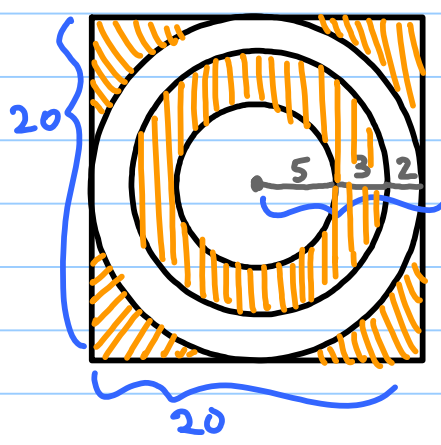
Find the area of $\odot G$.

$$A = \pi r^2 = \pi (10)^2 = 100\pi \approx 314.2 \text{ cm}^2$$

area

ex "for fun")

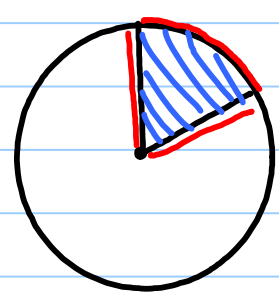
Find the probability of hitting the shaded region with a dart.



$$P(\text{shade}) = \frac{\text{Area square} - \pi(10)^2 + \pi(8)^2 - \pi(5)^2}{20(20)} = \frac{400 - 100\pi + 64\pi - 25\pi}{400} = \frac{400 - 61\pi}{400}$$

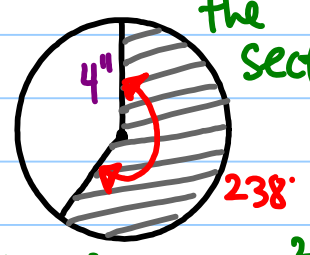
= .520907
52.1%

Sector - "Slice of Pizza"



Area bounded by the central angle and its corresponding arc

ex (last) Find area of the sector.



Thm 11.9

$$A = \left(\frac{N}{360}\right) \cdot \pi r^2$$

area of \odot

$$\left(\frac{238}{360}\right) \pi (4)^2 = 33.2 \text{ in}^2$$