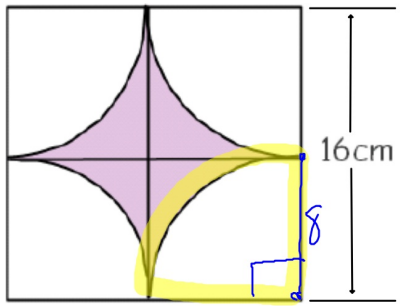
Bellwork Thursday, May 8, 2014

4. A dart lands somewhere on the square target. Find the probability that it lands in the shaded region. Give answer as a percent to the nearest tenth.



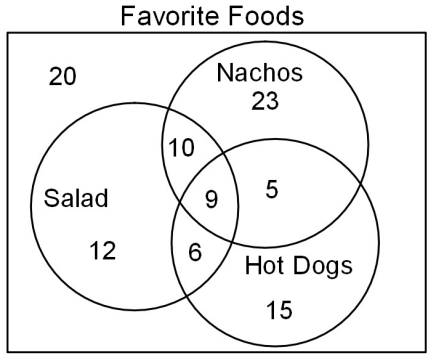
$\frac{\text{Square} - \text{Corners}}{\text{Square}} = \frac{16^2 - \pi r^2}{16^2}$

$= \frac{256 - 64\pi}{256}$

$= 21.5\%$

2. The Venn Diagram below shows favorite foods.

You will select a student at random, find each probability as a fraction.



a) P(likes Hot Dogs or Nachos) $\frac{68}{100}$

b) P(likes Salad but not Nachos) $\frac{18}{100}$

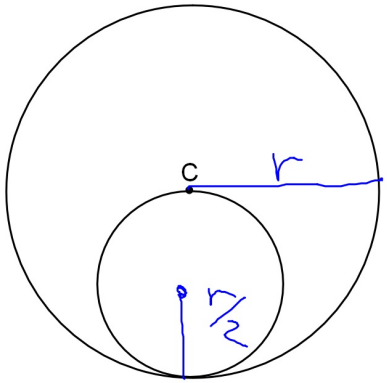
c) P(Likes only Nachos) $\frac{23}{100}$

d) P(likes Nachos and Salad but not Hot Dogs) $\frac{10}{100}$

e) Write a probability whose answer is 15 + 5

P(LIKE HD NOT Salad)

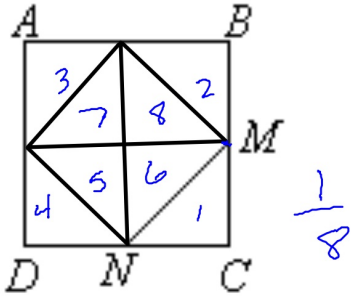
3. Find the probability that a point picked at random is inside the small circle given the fact it must be inside of the large circle. Pt C is the center of the large circle.



$$\frac{\text{Little circle}}{\text{Big circle}} = \frac{\pi(\quad)^2}{\pi(\quad)^2}$$

$$\frac{\pi\left(\frac{r}{2}\right)^2}{\pi r^2} = \frac{\pi\frac{r^2}{4}}{\pi r^2} = \frac{1}{4}$$

4. ABCD is a square and points M and N are midpoints. Find the probability if a dart lands inside the square it would land inside triangle MNC. Give your answer as a fraction.



$\frac{1}{8}$

$$\frac{\triangle}{\square} = \frac{\frac{1}{2}\left(\frac{x}{2}\right)\left(\frac{x}{2}\right)}{x^2}$$

$$= \frac{\frac{x^2}{8}}{x^2} = \frac{1}{8}$$