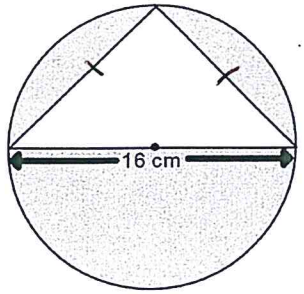
Algebra 2 Bellwork Thursday, April 7, 2016

1. Find each probability as a fraction when you roll a pair of dice.

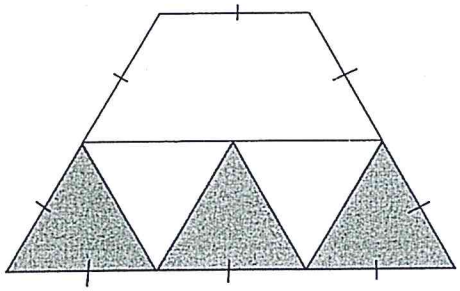
a) P(roll two odd #'s)=

b) P(sum of 8 and two even #'s)=

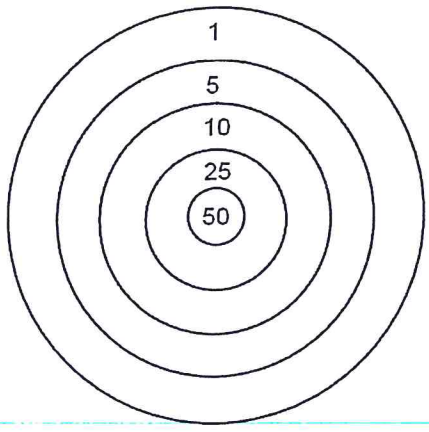
2. Find the probability of landing in the shaded region of the target. Give your answer as a percent rounded to the nearest hundredth.



3. Find the probability of landing in the shaded region of the target. Give your answer as a percent rounded to the nearest hundredth.



4. Use the target shown below. The bulls-eye has a radius of 2 cm. Each ring has a width of 2 cm. Find the probability that if a dart lands somewhere in the target that it will earn you 10 points. Give your answer as a percent rounded to the nearest hundredth.



Algebra 2 Bellwork Thursday, April 7, 2016 ANSWERS

1. Find each probability as a fraction when you roll a pair of dice.

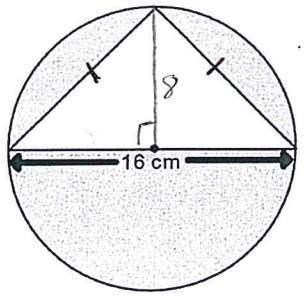
a) P(roll two odd #'s)= $\frac{9}{36}$

1,1 3,1 5,1
1,3 3,3 5,3
1,5 3,5 5,5

b) P(sum of 8 and two even #'s)= $\frac{3}{36}$

2,6
6,2
4,4

2. Find the probability of landing in the shaded region of the target. Give your answer as a percent rounded to the nearest hundredth.



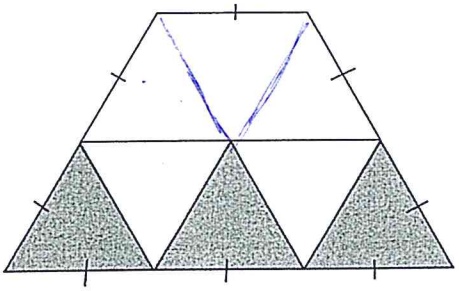
$p(\text{shaded}) = \frac{\text{circle} - \Delta}{\text{circle}} = \frac{64\pi - 64}{64\pi} = 68.17\%$

radius = 8

Area of circle $= \pi(8)^2 = 64\pi$

Area of $\Delta = \frac{1}{2}bh = \frac{1}{2}(16)(8) = 64$

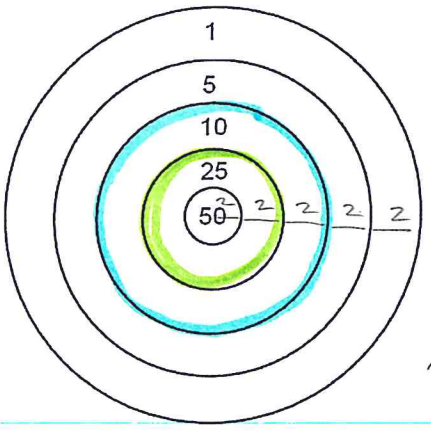
3. Find the probability of landing in the shaded region of the target. Give your answer as a percent rounded to the nearest hundredth.



$p(\text{shaded}) = \frac{\text{shaded pieces}}{\text{Total pieces}} = \frac{3}{8}$

$= 37.5\%$

4. Use the target shown below. The bulls-eye has a radius of 2 cm. Each ring has a width of 2 cm. Find the probability that if a dart lands somewhere in the target that it will earn you 10 points. Give your answer as a percent rounded to the nearest hundredth.



$p(10\text{pts}) = \frac{\text{Area of 10 pt ring}}{\text{Area of Target}} = \frac{20\pi}{100\pi}$

20%

Radius of Target = 10 cm

Area of Target $= \pi(10)^2 = 100\pi$

Area of 10 pt Ring:

= Blue circle − Green Circle

$= \pi(6)^2 - \pi(4)^2$

$= 36\pi - 16\pi = 20\pi$