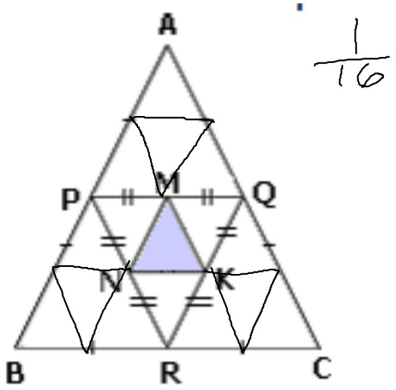
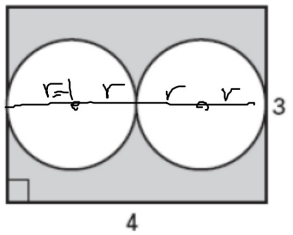
Bellwork Wednesday, May 7, 2014

1. A dart is thrown at ΔABC. What is the probability that it lands on shaded portion MNK? Give your answer as a fraction.



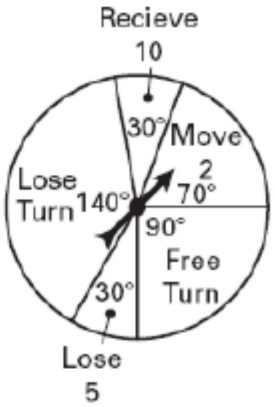
$\frac{1}{16}$

2. If you pick a point at random inside the rectangle, then find the probability that it is in the shaded area. Give your answer as a percent to the nearest hundredth.



$$\frac{\text{Area of shaded}}{\text{Total Area}} = \frac{12 - 2\pi(1)^2}{12} = 47.64$$

3. The spinner below is used in a board game. Find the probability that on the next spin it lands on the Lose Turn space. Give your answer as a fraction.



$\frac{140}{360}$

5. A play has 12 actors. The front of the program has room for only 7 of the actors names. How many ways can the names of 7 the actors names be listed on the front of the program?

$$_{12}P_7 = 3,991,680$$

6. You want to create a new health drink that has a mixture of fruits and vegetables. There are 6 vegetables and 7 fruits to choose from.

a) How many drinks can you create if you just choose 3 vegetables?

$_6C_3 = 20$

b) How many drinks can you create if you just choose 4 fruits?

$_7C_4 = 35$

c) How many drinks can you create if you choose 3 vegetables and 4 fruits?

$20 \cdot 35 = 700$

How many drinks can you create if you choose 3 vegetables OR 4 fruits?

$20 + 35 = 55$