Algebra 2 Bellwork Tuesday, May 19, 20135

1. You take a survey asking people what their favorite UEFA Champions League team is. The results are in the table below:

	Real Madrid	Dortmund	AC Milan	Chelsea FC	Arsenal FC	Total
Male	15	13	18	22	37	105
Female	23	17	14	8	16	78
Total	38	30	32	30	53	183

You will select one person at random. Find each probability as a fraction.

a) P(Dortmund or Chelsea FC)=

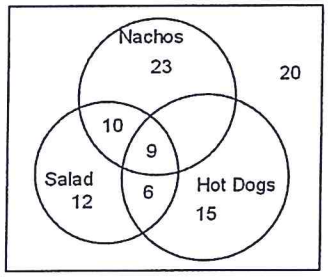
b) P(AC Milan and Male)=

c) P(Female or Real Madrid)=

d) P(Neither Arsenal FC nor Male)=

e) If you asked 60 more people what their favorite UEFA team is how many of them would select AC MIlan?

2. Below is a Venn Diagram about lunch food that students like. You will select a person at random. Find each probability as a fraction.



a) P(likes Hot Dogs or Nachos)

b) P(likes Salad but not Hot Dogs)

c) P(likes Nachos only)

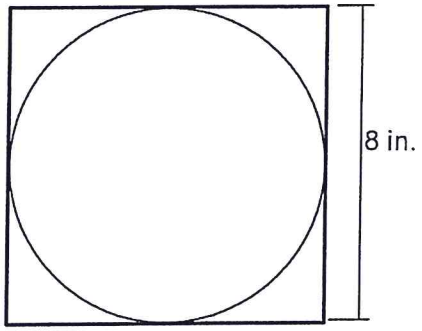
d) P(dislikes both Salad and Nachos)

e) Write a probability whose answer is 10+12

f) Write a probability whose answer is 6+9

3. Use the informaiton below:

The circle is inscribed in the square. A dart lands in a random spot within the square. Find the probability that the dart doesn't land in the circle. Give answer as a percent to the nearest tenth.



Algebra 2 Bellwork Tuesday, May 19, 20135 ANSWERS

1. You take a survey asking people what their favorite UEFA Champions League team is. The results are in the table below:

	Real Madrid	Dortmund	AC Milan	Chelsea FC	Arsenal FC	Total
Male	15	13	18	22	37	105
Female	23	17	14	8	16	78
Total	38	30	32	30	53	183

You will select one person at random. Find each probability as a fraction.

a) P(Dortmund or Chelsea FC)= $\frac{60}{183}$

b) P(AC Milan and Male)= $\frac{18}{183}$

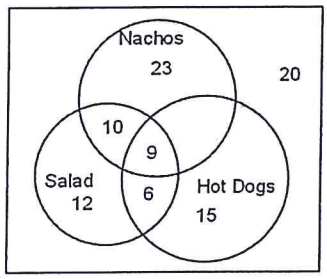
c) P(Female or Real Madrid)= $\frac{93}{183}$

d) P(Neither Arsenal FC nor Male)= $\frac{62}{183}$

e) If you asked 60 more people what their favorite UEFA team is how many of them would select AC MIlan?

$\frac{32}{183} = \frac{x}{60}$ ≈ 10

2. Below is a Venn Diagram about lunch food that students like. You will select a person at random. Find each probability as a fraction.



95 TOTAL

a) P(likes Hot Dogs or Nachos)= $\frac{63}{95}$

b) P(likes Salad but not Hot Dogs)= $\frac{22}{95}$

c) P(likes Nachos only) = $\frac{23}{95}$

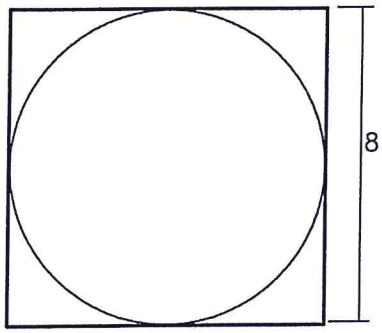
d) P(dislikes both Salad and Nachos) = $\frac{35}{95}$

e) Write a probability whose answer is 10+12

f) Write a probability whose answer is 6+9

3. Use the informaiton below:

The circle is inscribed in the square. A dart lands in a random spot within the square. Find the probability that the dart doesn't land in the circle. Give answer as a percent to the nearest tenth.



Area of SQ = $64 in^2$

Area of circle $= \pi(4)^2 = 16\pi in^2$

$\frac{SQ - circle}{SQ} = \frac{64 - 16\pi}{64}$

21.5%