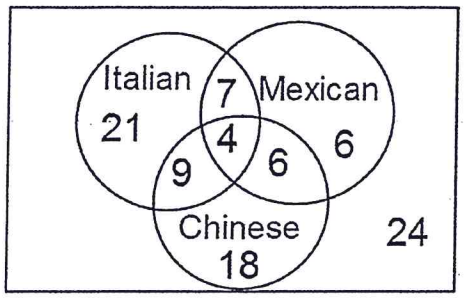
Algebra 2 Bellwork Tuesday, May 26, 2015

This Venn Diagram shows foods people like.



A person is selected at random.
Find each probability as a fraction.

1. P(don't like Italian)
2. P(like Chinese but not Mexican)
3. P(Like Mexican and Italian but not Chinese)
4. P(Like Italian or Chinese)
5. P(Don't like Italian, Mexican, or Chinese)

6. Harry travels a lot for his job. The probability that he's in Florida at noon is $\frac{2}{15}$ and the probability that he's in Cancun at noon is $\frac{1}{9}$.
Find the probability that he's in Florida or he's in Cancun at noon. Give your answer as a fraction.
P(Florida or Cancun) =

7. The probability that I wear a green shirt is $\frac{3}{8}$ and the probability that I wear black pants is $\frac{2}{7}$.
Find the probability that I wear a green shirt or I wear black pants to work today. Give your answer as a percent to the nearest tenth.

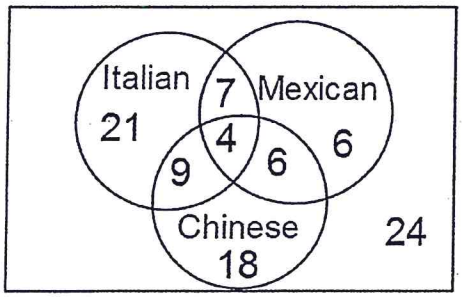
P(green shirt or black pants)=

8. You go in the back yard an shoot some arrows at a target. The package of arrows has 3 with red feathers, 8 with blue feathers, and 2 with green feathers.
You pull out an arrow at random and shoot it at the target. You missed the bulls-eye so you grab another arrow at random and shoot it. Find each probability as a fraction.

a) P(gree arrow and blue arrow)=
b) P(red arrow and red arrow)=

Algebra 2 Bellwork Tuesday, May 26, 2015 ANSWERS

This Venn Diagram shows foods people like.



A person is selected at random. Find each probability as a fraction.

95 TOTAL

1. P(don't like Italian) = $\frac{54}{95}$

2. P(like Chinese but not Mexican) = $\frac{27}{95}$

3. P(Like Mexican and Italian but not Chinese) = $\frac{7}{95}$

4. P(Like Italian or Chinese) = $\frac{65}{95}$

5. P(Don't like Italian, Mexican, or Chinese) = $\frac{24}{95}$

6. Harry travels a lot for his job. The probability that he's in Florida at noon is $\frac{2}{15}$ and the probability that he's in Cancun at noon is $\frac{1}{9}$. * MUTUALLY EXCLUSIVE

Find the probability that he's in Florida or he's in Cancun at noon. Give your answer as a fraction.

P(Florida or Cancun) =

$= \frac{1}{9} + \frac{2}{15} = \frac{5}{45} + \frac{6}{45} = \frac{11}{45}$

7. The probability that I wear a green shirt is $\frac{3}{8}$ and the probability that I wear black pants is $\frac{2}{7}$.

Find the probability that I wear a green shirt or I wear black pants to work today. Give your answer as a percent to the nearest tenth.

* NOT MUTUALLY EXCLUSIVE

P(green shirt or black pants)=

$= 3/8 + 2/7 - 3/8 \cdot 2/7 \rightarrow 55.4\%$

8. You go in the back yard an shoot some arrows at a target. The package of arrows has 3 with red feathers, 8 with blue feathers, and 2 with green feathers. 13 TOTAL

You pull out an arrow at random and shoot it at the target. You missed the bulls-eye so you grab another arrow at random and shoot it. Find each probability as a fraction.

a) P(gree arrow and blue arrow)=

$= \frac{2}{13} \cdot \frac{8}{12}$

$= \frac{16}{156}$

b) P(red arrow and red arrow)=

$= \frac{3}{13} \cdot \frac{2}{12}$

$= \frac{6}{156}$