

Daily Agenda

Learning Targets:
 I can calculate the probability of an event.
 I can compare the experimental probability and theoretical probability of an event occurring.
 I can determine if an event is dependent or independent.
 I can determine if an event is mutually exclusive.
 I can calculate the probability of at least 1.
 I can find conditional probability using contingency tables, tree diagrams, or Venn diagrams.
 I can draw a tree diagram, Venn diagram, or two-way table to model a situation.

Homework	Assessments
Unit 10A Review WS	Unit 10 A Test - 5/5

Nov 15-8:24 PM

Pass Math 90% Speech 80% Spanish 95%
 Not Pass Math 10% Speech 20% Spanish 5%

$P(\text{exactly 1}) = P(\text{just M}) + P(\text{just S}) + P(\text{just Span})$

$P(\text{just Math}) = P(\text{Math}) \cdot P(\text{not Speech}) \cdot P(\text{not Sp})$
 $(.9)(.2)(.05) = .009$

$P(\text{just Speech}) = P(\text{Speech}) \cdot P(\text{not Math}) \cdot P(\text{not Span})$
 $(.8)(.10)(.05) = .004$

$P(\text{just Spanish}) = P(\text{Spanish}) \cdot P(\text{not Math}) \cdot P(\text{not Speech})$
 $(.95)(.10)(.20) = .019$
 $\underline{\underline{.032}}$

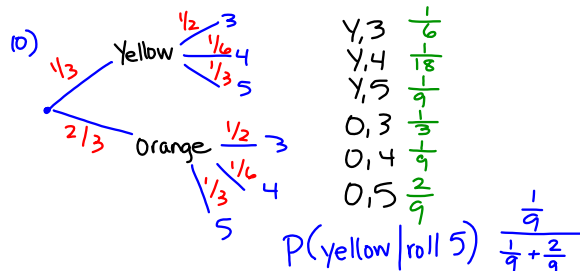
May 4-11:04 AM

3) a) Prob. sample recycled waste is paper
 $P(\text{paper} | \text{recycled})$
 $\frac{45.2}{79.4} = 56.9\%$

b) $P(\text{plastic} | \text{recycled}) = \frac{2.1}{79.4} = 2.6\%$

c) $P(\text{recycled} | \text{glass}) = \frac{3.2}{13.6} = 23.5\%$

May 4-11:13 AM

10) 

$P(\text{yellow} | \text{roll 5}) = \frac{1}{9} + \frac{2}{9}$

May 4-11:17 AM

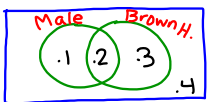
Example In a class: $P(\text{male}) = 0.30$
 $P(\text{brown hair}) = 0.50$
 $P(\text{male with brown hair}) = 0.20$

Draw a Venn Diagram and find each probability if one student is picked at random.

a. $P(\text{female}) = .7$

b. $P(\text{male} | \text{brown hair}) = \frac{.2}{.5} = .4$

c. $P(\text{female} | \text{doesn't have brown hair}) = \frac{.4}{.5} = .8$



May 1-9:41 AM

Example Freezy's Ice Cream Stand is testing out two new flavors, Birthday Cake and Dandy Cotton Candy. A poll conducted by Freezy's showed that 32 customers liked Birthday Cake, 58 customers liked Dandy Cotton Candy, 12 liked both flavors, and 22 liked neither flavor.

What is the probability that a customer selected at random would like Dandy Cotton Candy?

What is the probability that a customer selected at random would like either Birthday Cake or Dandy Cotton Candy?

May 1-9:44 AM

Two Way Tables

There are a total of 96 children of ages 4, 5, 6.

- 37 of these children cannot swim.
- 11 four-year olds cannot swim.
- 21 five-year olds can swim.
- There are 30 six-year olds, 18 can swim.

1. $P(\text{can swim}) = \frac{59}{96}$ *Swim* Yes

2. $P(\text{four-year old} \mid \text{can't swim}) = \frac{11}{37}$ No

3. $P(\text{can swim} \mid \text{six-year old}) = \frac{3}{5}$

	4	5	6	
Yes	20	21	18	59
No	11	14	12	37
	31	35	30	96

Apr 7-4:31 PM