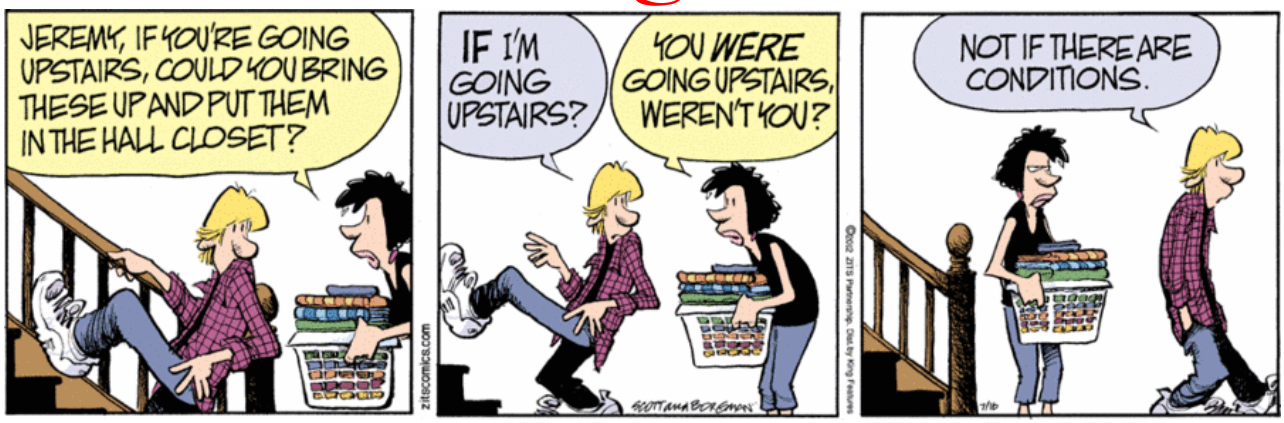
Good morning!

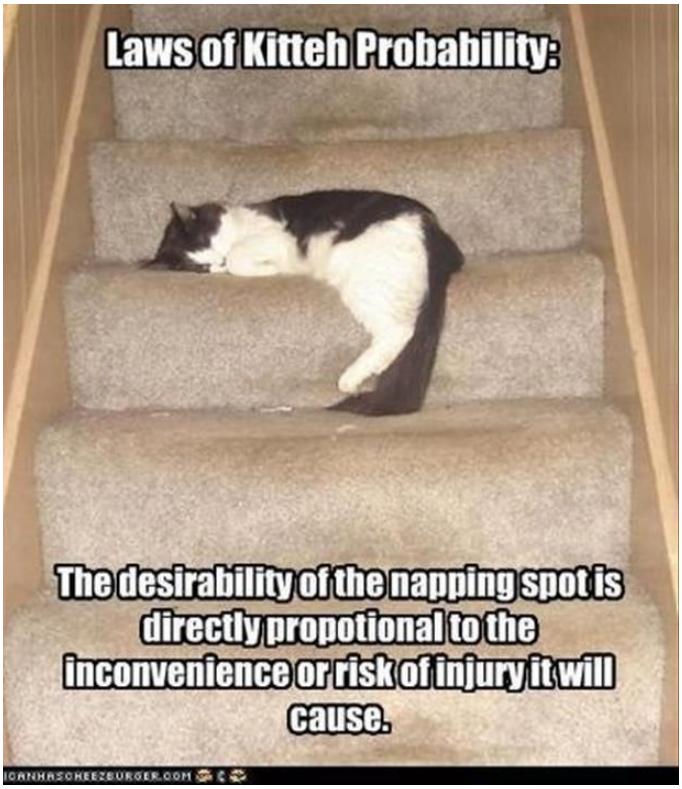
1. "Here"

2. Review for Probability Quiz

3. Take Quiz

If ... Given that ... Of ... Out of ... denominator




Laws of Kitteh Probability:
The desirability of the napping spot is directly propotional to the inconvenience or risk of injury it will cause.
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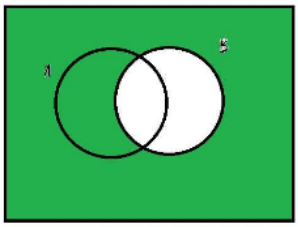
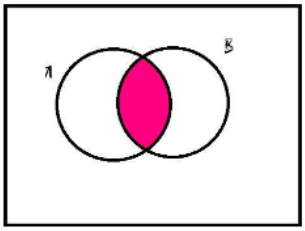
Probability Practice Quiz

Set Notation and Venn Diagrams: Match the set notation to its Venn diagram. Each option will be used only once.

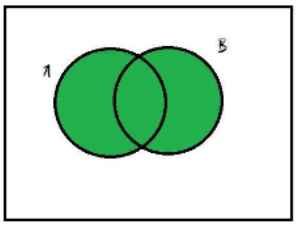
a. $A \cap B$ b. $(A \cap B)'$ c. $A \cup B$ d. B' e. $B \cap A'$ f. $A \cap B'$



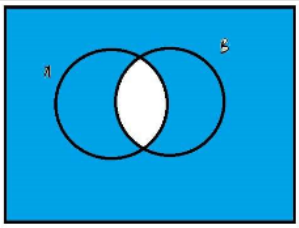
1. B'



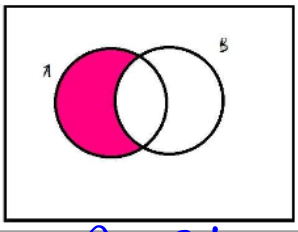
2. $A \cap B$



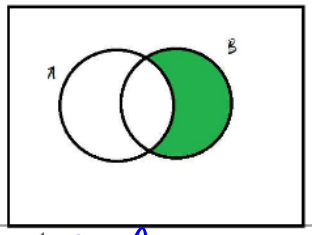
3. $A \cup B$



4. $(A \cap B)'$



5. $A \cap B'$



6. $B \cap A'$

Set Notation: Answer the following questions based on the universal set and subsets given below. **(Universal)Ω = {A, B, C, D, E, F, G, 1, 2, 3, 4, 5, 6, 8, 9, 11}**

€ = {A, D, E, F, 1, 2, 4 , 6, } £ = { A, B, C, F, 1, 2, 3, 5 }

7. List the elements of the set (€ ∩ £)

{A, F, 1, 2}

8. List the elements of the set (€ ∪ £)

{A, D, E, F, 1, 2, 4, 6, B, 3, 5}

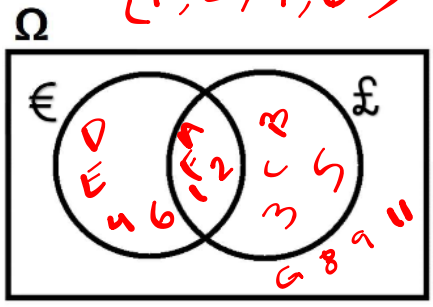
9. List the elements of the set (€ ∪ £)'

{G, 8, 9, 11}

10. List the elements of the set (€ ∩ £')

{D, E, 4, 6}

11. Draw a Venn Diagram to Represent the Sets:



"I wish we hadn't learned probability
'cause I don't think our odds are good."

Probability

Find the experimental probability of the following events. Your answer should be a fully reduced fraction.

12. Bridget categorized all the people who entered the theatre for a show by their hair color. The data is shown in the table below

black	13
gray	35
brown	22

a. Determine P(black) : 13/70

b. Determine P(grey) : 35/70 = 1/2

c. Determine P(black or brown) : 13/70 + 22/70 = 35/70 = 1/2

+ 70

13. An ice cream store recorded its sales for the week in the summer. Their data is shown below.

mint	307
rocky road	219
mocha	244

+ 770

What is the experimental probability that the next cone sold is mocha? Your answer should be a fully reduced fraction.

244/770 = 122/385

14. Determine the following probabilities from the table below:

	Organic	Non-organic	
Apples	13	8	21
Peaches	6	3	9
Blueberries	13	12	25
	32	23	55

a. P(Apple and Non-Organic) = 8/55

b. P (Apple or Non- Organic) = 36/55

21/55 + 23/55 − 8/55 = 36/55

c. P (Blueberries or Peaches) = 25/55 + 9/55 − 0/55 = 34/55

d. P(Blueberry and Organic)= 13/55

e. P(Blueberries or Organic)= 25/55 + 32/55 − 13/55 = 44/55 = 4/5

$P(A \cup B) = P(A) + P(B) - P(A \cap B)$

15. Determine the Following probabilities from the data:

P(A) =.8 P(B) =.5 P(A ∩ B) = .4 Determine: P(A∪B) = .8 + .5 − .4 = .9

16. P(C)=.6 P(B) = .5 P(C U B) = .8 Determine: P (C∩B)=

$P(C \cup B) = P(C) + P(B) - P(C \cap B)$

$+P(C \cap B) \quad +P(C \cap B)$

$P(C \cap B) = P(C) + P(B) - P(C \cup B)$

$.6 + .5 - .8 = .3$

OR ∪ : $P(A \cup B) = P(A) + P(B) - P(A \cap B)$

∩ $P(A \cap B) = P(A) + P(B) - P(A \cup B)$

OR : Add

AND : Both, intersection

Conditional : change denominator

if...
given...
of... out of...
from...

WHY DID THE MUTUALLY EXCLUSIVE EVENTS BREAK UP?
THEY HAD NOTHING IN COMMON
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Determine if the following are mutually exclusive or overlapping, then find the probability of each.

17. In a deck of cards find the probability of drawing a Jack or a heart.

Mutually Exclusive or Overlapping? _____

P (Jack or Heart)= _____

$\frac{4}{52} + \frac{13}{52} - \frac{1}{52}$

18. In a deck of cards, find the probability of drawing a Queen or Even Numbered card.

Mutually Exclusive or Overlapping? _____

P(Queen or Even Numbered Card) = _____

$\frac{4}{52} + \frac{20}{52} = \frac{24}{52}$

19. You're rolling two dice and looking at their sum. What is the probability of rolling an even sum or a sum greater than 8?

	1	2	3	4	5	6
1	2	3	4	5	6	7
2	3	4	5	6	7	8
3	4	5	6	7	8	9
4	5	6	7	8	9	10
5	6	7	8	9	10	11
6	7	8	9	10	11	12

Mutually Exclusive or Overlapping? _____

P(Even sum or Sum greater than 8)= _____

$\frac{18}{36} + \frac{10}{36} - \frac{4}{36} = \frac{24}{36} = \frac{2}{3}$

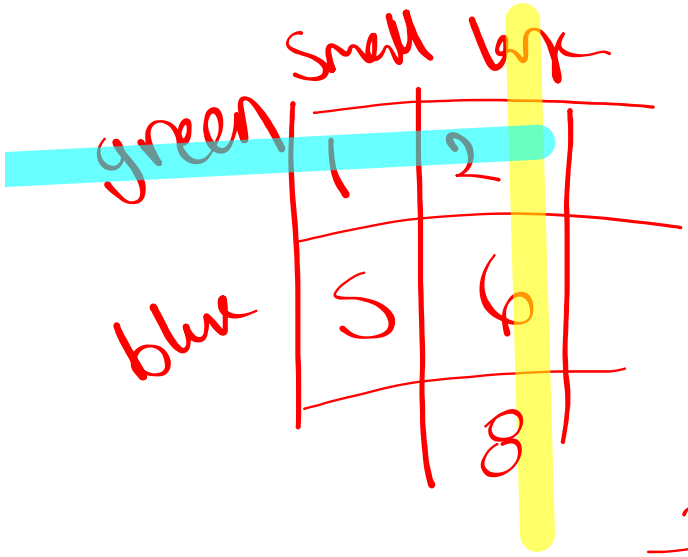
20. Answer the questions about probabilities from the sum chart.

a. P (Even sum and sum greater than 8)= 2/3

b. P(odd sum or sum less than 6) = _____

c. P(sum of 12 or sum of 3) = _____

$\frac{1}{36} + \frac{2}{36} = \frac{3}{36} = \frac{1}{12}$



what is prob. of getting green given that it is large?

$\frac{2}{8} = \frac{1}{4} = .25$

Log in your answers, please:)

https://tinyurl.com/4yc95xw9