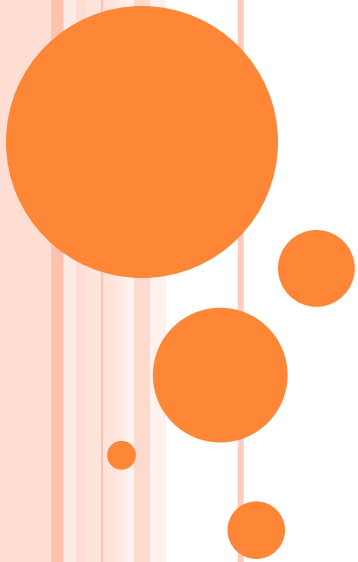


ICM Unit 1

Day 9

Quiz #2 Day!



WARM UP DAY 9

QUIZ #2 DAY

1. A student takes 3 tests and can either pass or fail each test.
 - a) Write the sample space S for this experiment.
 - b) List the Event A that the student failed the second test.

2. Draw a Venn Diagram to express the following: $P(A)=0.25$, $P(B)=0.45$ and $P(A \cap B) = 0.15$.
 - a. Find $P(A^c \cup B)$
 - b. Find $P(A \cap B)^c$

3. A pair of dice is cast. What is the probability of that
 - a. The sum of the numbers shown uppermost is less than 5?
 - b. At least one 6 is cast?



WARM UP

1. A student takes 3 tests and can either pass or fail each test.

a) Write the sample space S for this experiment.

$$S = \{PPP, PFP, PPF, PFF, FFF, FBF, FPP, FFP\}$$

b) List the Event A that the student failed the second test.

$$A = \{PFP, PFF, FFF, FFP\}$$

2. Draw a Venn Diagram to express the following: $P(A)=0.25$, $P(B)=0.45$ and $P(A \cap B) = 0.15$.

a. Find $P(A^c \cup B) = 0.9$ b. Find $P(A \cap B)^c = 0.85$

3. A pair of dice is cast. What is the probability of that

a. The sum of the numbers shown uppermost is less than 5? $P(\text{sum} < 5) = 6/36 = 1/6$

b. At least one 6 is cast? $P(\text{at least } 6) = 1 - P(\text{no } 6)$
 $= 1 - (5/6)^2$
 $= 0.3056$
OR $11/36$



Die	1	2	3	4	5	6
1	(1, 1)	(1, 2)	(1, 3)	(1, 4)	(1, 5)	(1, 6)
2	(2, 1)	(2, 2)	(2, 3)	(2, 4)	(2, 5)	(2, 6)
3	(3, 1)	(3, 2)	(3, 3)	(3, 4)	(3, 5)	(3, 6)
4	(4, 1)	(4, 2)	(4, 3)	(4, 4)	(4, 5)	(4, 6)
5	(5, 1)	(5, 2)	(5, 3)	(5, 4)	(5, 5)	(5, 6)
6	(6, 1)	(6, 2)	(6, 3)	(6, 4)	(6, 5)	(6, 6)



ANY QUESTIONS ON HW?
QUIZ #2 REVIEW SHEET

TONIGHT'S HW

FINISH DICE & CARDS LAB

DO HOMEWORK DAY 9 (P. 13) 

MORE REVIEW

1. A survey of 200 seniors was taken. 68 of the students will attend the football game this Friday, and 109 of the students will attend the Homecoming game. 45 of the students will attend both football games. Find the probability that a student will attend the game this Friday or homecoming.
2. There are 24 tomatoes in a box and you need 3 to make spaghetti sauce. If 8 of the tomatoes are rotten, what is the probability that all 3 tomatoes you choose are not rotten?
3. The theater department is auditioning for the school play, Annie. There will be 4 orphans, 5 towns people, Annie, and Annie's understudy in the play. 6 people are trying out to be an orphan, 7 people are trying out to be a towns person and 8 people are trying out to be Annie or Annie's understudy. How many different casts can the theater department create?



MORE REVIEW


1. A survey of 200 seniors was taken. 68 of the students will attend the football game this Friday, and 109 of the students will attend the Homecoming game. 45 of the students will attend both football games. Find the probability that a student will attend the game this Friday or homecoming.

$$\frac{132}{200} = \frac{33}{50} = .66$$

2. There are 24 tomatoes in a box and you need 3 to make spaghetti sauce. If 8 of the tomatoes are rotten, what is the probability that all 3 tomatoes you choose are not rotten?

$$\left(\frac{16}{24}\right)\left(\frac{15}{23}\right)\left(\frac{14}{22}\right) = .277$$

3. The theater department is auditioning for the school play, Annie. There will be 4 orphans, 5 towns people, Annie, and Annie's understudy in the play. 6 people are trying out to be an orphan, 7 people are trying out to be a towns person and 8 people are trying out to be Annie or Annie's understudy. How many different casts can the theater department create?

$${}_6C_4 \cdot {}_7C_5 \cdot {}_8P_2 = 17640$$


EVEN MORE REVIEW 😊

1. Sandra has 8 **pairs** of winter gloves in a drawer. 3 pairs of the gloves are fleece, 4 pairs are leather and 1 pair is wool. If Sandra pulls out a pair of leather gloves, what's the probability the next glove she grabs will be wool?

2. Given a bag of tiles with the letters of the alphabet, what is the probability of grabbing one of the first 12 letters in the alphabet or one of the letters in the word *equation*?



EVEN MORE REVIEW 😊

1. Sandra has 8 **pairs** of winter gloves in a drawer. 3 pairs of the gloves are fleece, 4 pairs are leather and 1 pair is wool. If Sandra pulls out a pair of leather gloves, what's the probability the next glove she grabs will be wool?

$$\frac{2}{14} = \frac{1}{7} = 0.143$$

2. Given a bag of tiles with the letters of the alphabet, what is the probability of grabbing one of the first 12 letters in the alphabet or one of the letters in the word *equation*?

$$\frac{12}{26} + \frac{8}{26} - \frac{3}{26} = \frac{17}{26} = 0.654$$



JUST FOR FUN!



○ Complete the sequence:

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

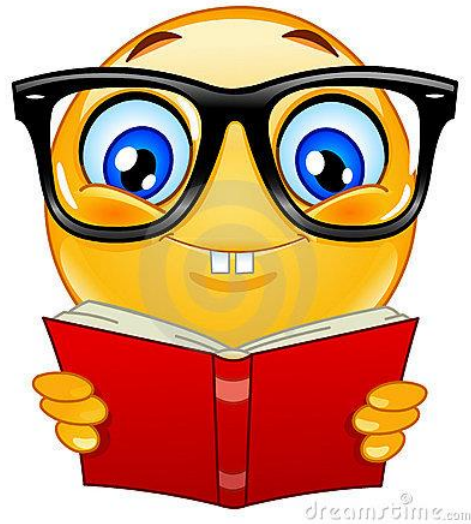
6

That is the number of letters in
the spelling of each number!



HOMWORK QUESTIONS?!

REVIEW QUESTIONS?!



QUIZ TIME!!

AFTER THE QUIZ

FINISH DICE & CARDS LAB

DO HOMEWORK DAY 9 (P. 13)

