NAME: _____ Unit 6 Quiz

BLOCK: _____

1. Calculate the theoretical probability of rolling a 3 on a 6-sided die.

$\frac{1}{6}$ because there's only one 3 on the six sides.

1, 2, 3, 4, 5, 6

2. Given the data below, what is the probability that a person would draw a diamond card.

Diamonds	𝍸 ||	7
Hearts	𝍸 ||||	9
Spades	𝍸 𝍸 |	11
Clubs	|||	3

TOTAL: 30

$\frac{7}{30}$

3. Calculate the probability that a randomly chosen student from the class has a sister.

	Has a brother	Does not have a brother	TOTAL
Has a sister	5	12	17
Does not have a sister	2	7	9
			26

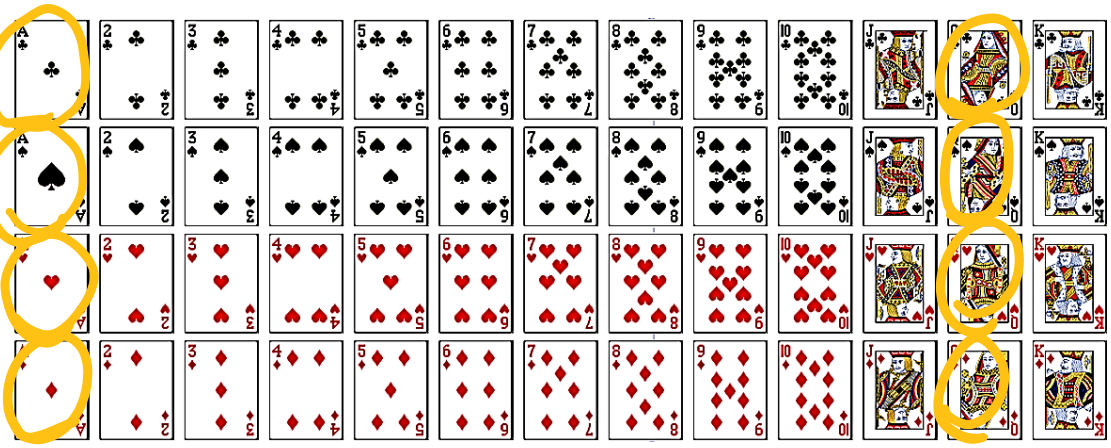
$\frac{17}{26}$

4. Calculate the probability that a randomly chosen student from the class did not pass the test.

	Passed the Test	Failed the Test	
Completed the homework	5	8	
Did not complete the homework	3	12	
TOTAL:	8	20	= 28

$\frac{20}{28} = \frac{5}{7}$

5. Calculate the probability of selecting a Queen or Ace from a standard deck of cards.



$= 13$

$= 13$

$= 13$

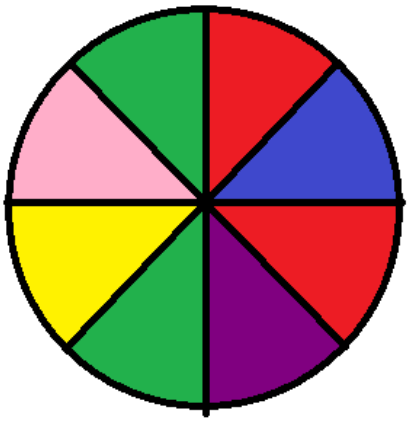
$= 13$

52

$\frac{8}{52} = \frac{2}{13}$

6. Calculate the probability of landing on red or pink.

8 TOTAL pieces.



2 red

1 pink

$\frac{3}{8}$

7. Calculate the probability of landing on an odd number or a multiple of 5.

odd #'s

1

3

5

7

9

multiples of 5

5

10

* only count 5 once *

$\frac{6}{10} = \frac{3}{5}$

8. In a certain Geometry class of 32 students, 12 of the students play basketball and 17 play soccer. There are 6 students who play neither. What is the probability that a randomly chosen student plays basketball ONLY? (Hint: Draw a chart and/or use a Venn Diagram).

Geometry	Basketball	No Basketball	Total
Soccer	3	14	17
No Soccer	9	6	15
Total	12	20	32

Basketball, no soccer = 9 students

$\frac{9}{32}$

9. Use the data below to calculate the probability that a randomly chosen student was male given his favorite color is yellow.

	Male	Female	TOTAL
Red	7	5	12
Purple	5	6	11
Yellow	9	4	13

Condition: favorite color is yellow. 13 ppl!

$\frac{9}{13}$ because we want just males!

10. Use the data below to calculate the probability that a randomly chosen student eats breakfast given they are female.

	Male	Female
Eat Breakfast	12	19
Do NOT eat Breakfast	17	3
TOTALS:	29	22

Condition: female. There are 22 total females. From those we want the ones who eat breakfast.

$\frac{19}{22}$