

NAME: _____

P.I. A.S.20: Calculate the probability of an event

1. Six balls numbered from 1 to 6 are placed in an urn. If one ball is selected at random, find the probability that it is an odd-numbered ball.

[A] $\frac{1}{6}$ [B] $\frac{1}{2}$ [C] $\frac{5}{6}$ [D] $\frac{2}{3}$

2. A single six-sided fair die is tossed. Find the probability of obtaining a number greater than 4.

[A] $\frac{1}{3}$ [B] 1 [C] $\frac{1}{6}$ [D] $\frac{5}{6}$

3. You are one of 30 people entering a contest. What is the probability that your name will be drawn first?

[A] $\frac{1}{31}$ [B] $\frac{1}{15}$ [C] $\frac{1}{30}$ [D] $\frac{1}{29}$

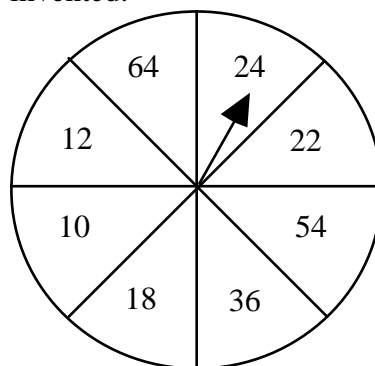
4. Given the set of numbers (0, 1, 2, 3, 4, 5, 6, 7, 8), if one of the numbers of the set is chosen at random, find the probability that the number is a solution of $3x + 1 < 13$.

[A] $\frac{1}{2}$ [B] $\frac{4}{9}$ [C] $\frac{1}{9}$ [D] $\frac{5}{9}$

5. What is the probability of drawing a spade from a deck of 52 playing cards?

[A] $\frac{1}{2}$ [B] $\frac{13}{100}$ [C] $\frac{1}{3}$ [D] $\frac{1}{4}$

6. This is a spinner used in a board game Helen invented.



What is the probability that the spinner will land on a multiple of 3 and 4?

[A] $\frac{1}{8}$ [B] $\frac{1}{4}$ [C] $\frac{3}{8}$
[D] $\frac{1}{2}$ [E] $\frac{5}{8}$

7. Donato's little brother Joseph is too small to see inside his sock drawer. Joseph has 2 pairs of white socks, 4 pairs of black socks, and 1 pair of blue socks inside his drawer. If the socks are not paired together, what is the probability that Joseph will reach inside his drawer and pick a black sock?

[A] $\frac{2}{7}$ [B] $\frac{3}{7}$ [C] $\frac{4}{7}$ [D] $\frac{6}{7}$

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8. Compare the quantities in Column A and Column B.

Column A

Column B

the probability of choosing
a blue marble from a box

the probability of choosing
a white marble from a box

- [A] The quantity in Column A is greater. [B] The quantity in Column B is greater.
[C] The quantities are equal.
[D] The relationship cannot be determined from the information given.

9. Compare the quantities in Column A and Column B.

Column A

Column B

$P(\text{odd number})$ when
choosing from 1, 2, 3

$P(\text{even number})$ when
choosing from 1, 2, 3

- [A] The quantity in Column A is greater. [B] The quantity in Column B is greater.
[C] The quantities are equal.
[D] The relationship cannot be determined from the information given.

10. 1 2 3 4 5 6

1	2	3	4	5		
2	3	4	5			
3	4	5	6			
4	5					
5						
6						

The figure above is a partially completed table showing the possible combinations of the roll of two number cubes. How many different combinations from the completed table will result in a roll of two cubes having a value of seven?

- [A] 12 [B] 1 [C] 3 [D] 6

- [1] B
- [2] A
- [3] C
- [4] B
- [5] D
- [6] C
- [7] C
- [8] D
- [9] A
- [10] D