Time Frame: 50 minutes

Subject Matter: Classical Probability

Anticipatory Set:

In rolling two dice, what is the probability of obtaining a 2 and a 6?

Objective: TSWBAT find the probability of an event using classical probability.

Standards: DA – 1.1 & 1.2

Materials: Textbook, O.H.P. & Transparencies

**TELL ME**

Presentation of Information:

Definition of Terms:

**SHOW ME**

Example 1: Find the complement of each event.

1. Rolling a die and getting a 4.
2. Selecting a letter of the alphabet and getting a vowel.

Example 2: If one card is drawn from a deck, find the probability of getting these results.

1. An ace
2. A diamond
3. An ace of diamonds
4. A 4 or a 6
5. A 4 or a club
6. A 6 or a spade
7. A heart or a club
8. A red queen
9. A red card or a 7
10. A black card and a 10

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_**

**LET ME TRY**

1. A couple has three children. Find each probability.
   1. Of all boys
   2. Of all boys or all girls
   3. Of exactly two boys or two girls
   4. Of at least one child of each gender.
2. A shopping mall has set up a promotion as follows. With any mall purchase, the customer gets to spin the wheel shown here. If the number 1 comes up, the customer wins $10. If the number 2 comes up, the customer wins $5, and if the number 3 or 4 comes up, the customer wins discount coupon. Find the following probabilities.
   1. The customer wins $10.
   2. The customer wins money.
   3. The customer wins a coupon.
3. A roulette wheel has 38 spaces numbered 1 through 36, 0 and 00. Find the probability of getting these results.
   1. An odd number
   2. A number greater than 25
   3. A number less than 15, not counting 0 and 00.
4. If two dice are rolled one time, find the probability of getting these results.
5. A sum of 12
6. A sum of 13
7. A sum of 5 or 7
8. A sum greater than 8
9. A sum less than or equal to 5.

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| --- | --- | --- | --- | --- | --- | --- |
|  | 2nd Die | | | | | |
| 1st Die | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |