Time Frame: 50 minutes

Subject Matter: Combination Rule Rule

Anticipatory Set:

Evaluate the following.

1. 6P4
2. 5P5

Objective: TSWBAT find the number of ways that *r* objects can be selected from *n* objects, using the combination rule.

Standards: DA – 5.2 Use counting techniques to determine the number of possible outcomes for an event.

Materials: PowerPoint Presentation and Worksheets

SHOW ME

Presentation of Information:

*Combination Rule*

* The number of combinations of r objects selected from n objects is denoted by nCr, and the formula is

$$nCr= \frac{n!}{\left(n-r\right)!r!}$$

Example 1:

 Solve the following permutations.

1. 6C4
2. 5C5
3. 8C3

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

LET ME TRY

Evaluate the following. Show your work.

1. 9C6 6. 9C6

1. 12C8 7. 7C2
2. 9C8 8. 5C0
3. 10C4 9. 8C8
4. 16C12 10. 9C7

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

HOMEWORK

Evaluate the following. Be sure to show your work.

1. 4C1 6. 4C3

1. 16C8 7. 9C2
2. 13C8 8. 5C2
3. 8C4 9. 8C5
4. 10C12 10. 9C6