



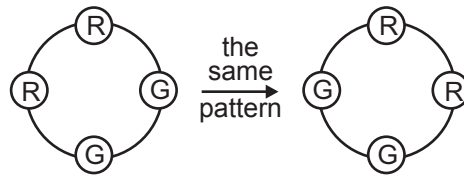
NOVEMBER CHALLENGE



Name _____

Calculators may be used.

1. patterns A bracelet is made by stringing together four beads. Each bead is either red or green. How many different color patterns are possible for the bracelet, where patterns are considered the same if turning one will produce the other, as shown here?

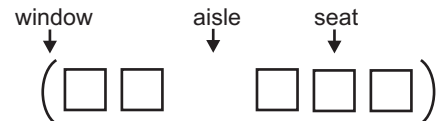


2. _____ Place a digit 0 through 9 in each blank so the equation below is true. What is the sum of the six digits you placed in the blanks?

$$(_6_3_1) - (76_35) = (_9,28_)$$

3. _____ In the sequence 16, 80, 48, 64, A, B, each term beyond the second term is the arithmetic mean (average) of the previous two terms. What is the value of B?

4. seats Each row of passenger seats on an airplane is set up as shown, where “(“ and “)” indicate a window, “□” represents a seat, and an aisle is between the second and third seat in every row. There are 96 passenger seats that are not along the aisle. How many passenger seats are along the aisle?



5. sq units Triangle ABC has sides with lengths 10, 23 and 27 units. The perimeter of a particular square is 60% of triangle ABC’s perimeter. What is the area of the square?