Name:
Class:
Date:

Question #1

A restaurant serves 3 kinds of pasta, 5 kinds of sauces, and 4 side dishes. The number of different meals that include 1 pasta, 1 sauce, and 1 side dish is $3 \times 5 \times 4 = 60$. If they stop serving one type of side dish, how many different meals are possible?

A) 11

B) 24

C) 45

D) 59

Question #2

A local restaurant advertises 3-topping pizzas at a discount price. With 6 toppings to choose from, how many 3-topping pizzas can be made if all the toppings are different? Note: Pepperoni (P), Cheese (C), and Sausage (S) is the same as CSP or SPC.

A) 15

B) 18

C) 20

D) 120

Question #3

A lock company advertises that their new combination lock has "nearly an infinite number of combinations possible." The lock requires a three letter code, with 26 possible choices for each of the three letters. Which expression represents the correct calculation for the number of possible lock combinations?

A) $26 \times 25 \times 24 \times \ldots \times 3 \times 2 \times 1$

B) $\mathbf{26 \times 26 \times 26}$

C) $\mathbf{26 \times 25 \times 24}$

D) $\frac{\mathbf{26 \times 25 \times 24}}{\mathbf{3 \times 2 \times 1}}$

Question #4

Ms. Hampton's sixth grade class is going on a field trip to the art museum. The museum requires students to tour in groups of three. If there are 24 students in Ms. Hampton's class, how many different combinations of three-student groups are possible?

A) 69

B) 72

C) 12,144

D) 13,824

Question #5

Gino brings home one book from each of his 5 school subjects and places them side by side on a bookshelf. In how many different orders can Gino arrange the 5 books on the shelf where Science is always first?

A) 15

B) 24

C) 120

D) 625