Student Name:_____

Section B

B1.

What is the value of (12 + 3) x 4 - 7

Answer to B1: _____

B2.

A group of 5 friends is looking to split a pack of gummies. Originally the pack had 50 gummies but somebody ate a gummy, leaving only 49 in the pack, and the group was unable to split the gummies evenly! The group of friends thus must call more people to join them in order to split the gummies evenly! What is the least amount of people they must call?

Answer to B2: _____

B3

Alice is writing a list of numbers on the chalkboard. She starts by writing two 1s on the chalkboard. Then, the next number she writes down is the sum of the previous two numbers in the list (thus she would write 1+1 = 2 as the third number, and then 1 + 2 = 3 as the fourth etc.) What is the 12th number she writes down?

Answer to B3: _____

B4

Anna and Bob are playing a game. Anna starts by rolling two dice. Bob then must guess what number Anna got. What is the minimum number of guesses Bob needs to guarantee that he guesses Anna's number?
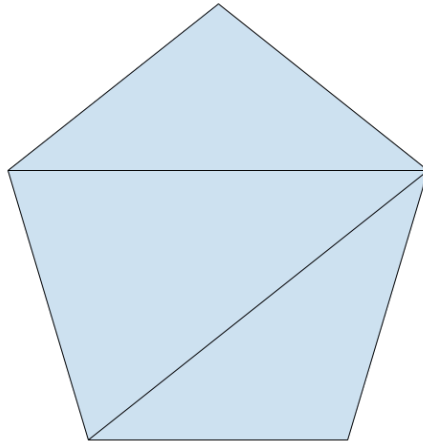
Answer to B4: _____

Student Name:_____

Please write your name on *every* page.

B5

Consider that we can split a pentagon into three triangles using 2 non-intersecting line segments attached to corners, as shown below

How many triangles could be made with 9 line segments following the same rules as above with a dodecahedron (12 sided shape).

Answer to B5: _____

B6

We call a number "twin prime" if both the number itself is prime, and also the number of letters in its spelling is prime. For example, 2 is "twin prime" since 2 is a prime, and 3, the number of letters in two is also a prime, while 5 is not since five contains 4 letters which is not a prime number. Find how many twin primes there are less than 30.

Answer to B6: _____

B7

Professor Jerry is showing his class a cool sequence. He starts by writing the number 1 on the chalkboard. He then writes 2 x 1 as the second number, and then 3 x 2 x 1 as the third number and so on. What is the first number he writes that is bigger than 2024?

Answer to B7: _____

Student Name:_____

B8

30 years ago, William was twice the age of his son, Henry. 10 years ago, Henry was twice the age of his son, Terry. In 10 years, Terry will be 41. What is the current age of William?

Answer to B8: _____