Summer Assignment for Incoming Sixth Graders
My Favorite Number

Do you have a favorite number? I do. My favorite number is 11. It's an odd number (get it ;-) to have as my favorite, but there is a fun story behind it. When I was 11, I immigrated to the United States with my siblings. To welcome us to America, my mother decided to take us to Coney Island. It was my first time at an amusement park and I was enamored with the lights, sounds and the smell of the beach. As I walked through the park, game booth promoters called out to us to join in the clown games. The objective was to be the first to pop the clown's balloon by filling its mouth with water. I eagerly sat at station 11. On my first attempt I won a large stuffed rottweiler. I was excited, my mother not so much. As we ventured deeper into the amusement park, another agent called out to us to play another game, I gladly took my place at the only seat available, 11, and won a giant dalmatian. From that moment on, 11 became my favorite number. So tell me, what's your favorite number?

For your summer math assignment as an incoming sixth grader, you will select your favorite number, share stories about yourself and discover some information about the number. Click the links below for help if you get stuck OR Google the term! (All the directions are outlined below & organized in this document. You may print and complete the .pdf OR organize your work on looseleaf.)

1. **Cover Page**:
    a. Your favorite number and name
    b. **Personal Connection** - Write a story that explains why you picked the number. Tell us why your number is special or represents YOU!
2. **Application -** Determine the following:
    a. Apply the [divisibility rules](#) to determine whether or not 2, 3, 4, 5, 6, 9, or 10 are factors of your number. Show your work.
    b. List all the [factors](#) of your number.
    c. Is your number [prime or composite](#)? Explain why or why not.
    d. Find the [prime factorization](#) of your number. Show your work.
    e. List the first 5 [multiples](#) of your number.
    f. [Square](#) and [cube](#) your number. Show your work.
    g. Ask a friend or relative what their favorite number is. Pair this number with yours. Find the [GCF](#) (Greatest Common Factor) and [LCM](#) (Least Common Multiple) of these two numbers. Show your work.
3. **Research** - Find some fun facts about your number. Be creative. Include 3 fun facts.

Name _____   Class (if you know it) _____

Choose Your Favorite Non-Shaded Number from the Choices Below:

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Choose a number that is <u>not</u> shaded.

THINK:

What do the shaded numbers have in common?

Why is the number 1 different?

My Favorite Number:

Personal Connection - Write a story that explains why you picked the number. Tell us why your number is special or represents YOU! (You are welcome to include a picture :-)

_____

Application - Determine the following:

a. Apply the _divisibility rules_ to determine whether or not 2, 3, 4, 5, 6, 9, or 10 are factors of your number. Show your work.

"Divisible By" means "when you divide one number by another the result is a _whole number_."

Divisible by 2? Prove it!	Divisible by 3? Prove it!
Divisible by 4? Prove it!	Divisible by 5? Prove it!
Divisible by 6? Prove it!	Divisible by 9? Prove it!
Divisible by 10? Prove it!	

b. List all the _factors_ of your number.

c. Is your number _prime or composite_? Explain why or why not.

d. Find the _prime factorization_ of your number. Show your work.

e. List the first 5 _multiples_ of your number.

f. _Square_ and _cube_ your number. Show your work.

g. Ask a friend or relative what their favorite number is. Pair this number with yours. Find the [GCF](#) and [LCM](#) of these two numbers. Show your work.

Other Number: _____

| | |
| | |

_____

Research - Find some fun facts about your number. Be creative. Include 3 fun facts.

Fact #1:
Fact #2:
Fact #3: