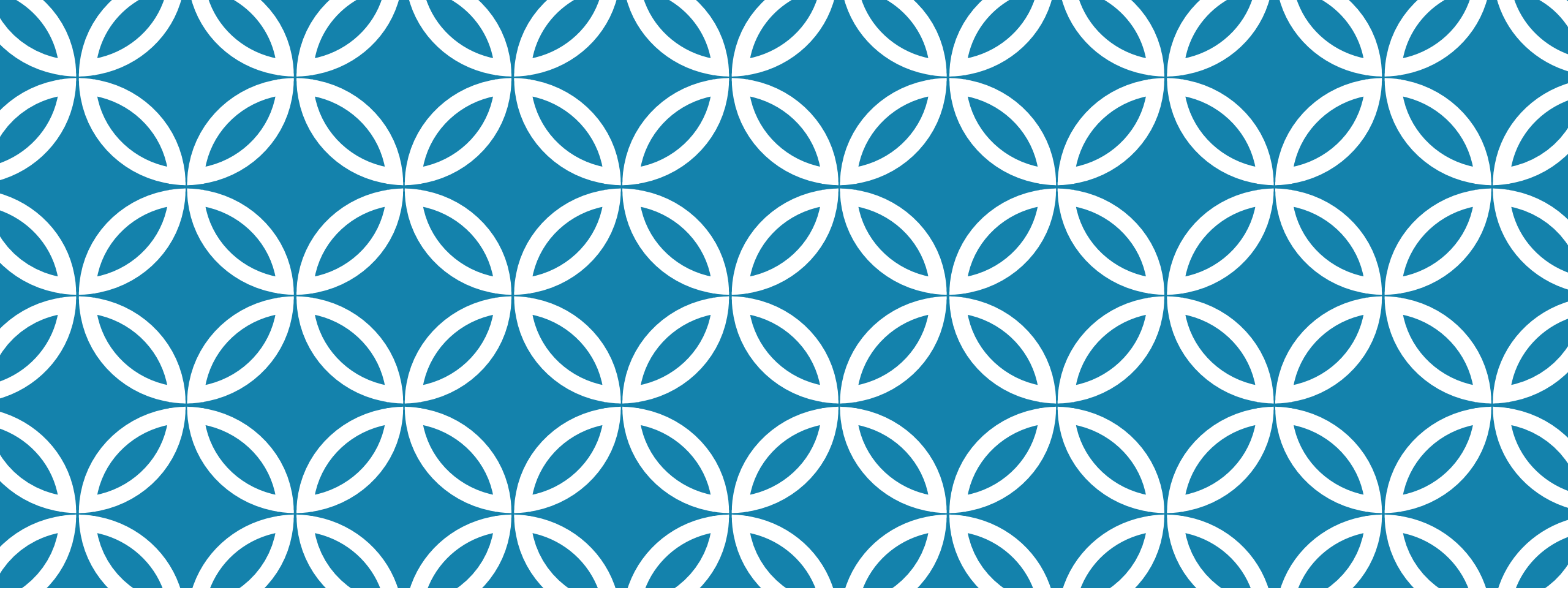


MATH ENRICHMENT PROGRAM

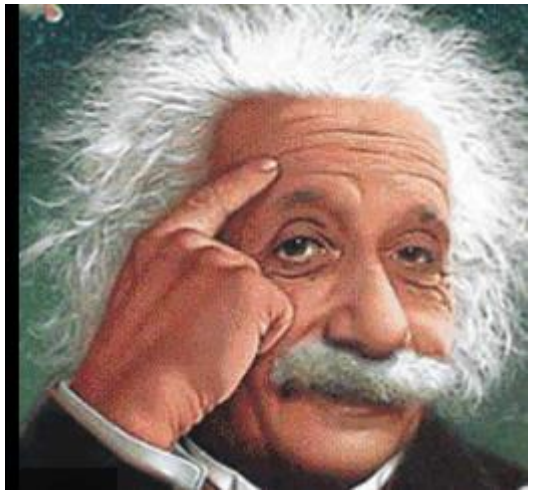
PATTERNS

Day 2

DISCUSSIONS

He means that he stays and deals with problems longer than being so smart, and the reason why he's so smart.

I believe Einstein was saying in this statement that not everyone works at the same pace. Some people take longer to do a task and some people do the task quicker. This doesn't mean that one person is smarter than or less intelligent than another. They just work at a different pace.



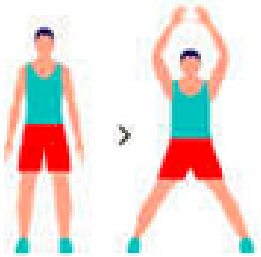
Good job!

It's not that I'm so smart; it's just that I stay with problems longer.
~Albert Einstein

. ;) I've learned myself to not give up and keep striving....anything is possible if you keep telling yourself "you can do it" and just put your mind to it plus there's that awesome word "Believe" :D :P

Albert Einstein as he wrote this passage he most like was thinking or trying to bring across his life challenges. he is saying that it's not that he is so smart, it is that he has learned from his challenges, mistakes and experiences. Having gone through them he is able to give suggestions and knowledge to those who are willing to listen and take heed.

WARM UP



TEMPERATURE	PAR 2	CHANCE
HEART	COLLAR HOT	THE HEAD SAND

1. Falling Temperature

2. Two Under Par

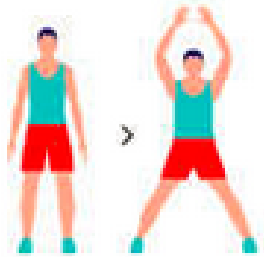
3. Fat Chance

4. Broken Heart

5. Hot Under the Collar

6. Head in the Sand

PATTERNS- WHAT COMES NEXT



- 2, 4, 6, 8, 10, _____
- 17, 19, 21, 23, ____
- 2, 3, 5, 7, 11, ____
- 2, 4, 8, 16, 32, _____

CHECK IN

1) What is the value of F(-2)

A) -6

B) 12

C) -12

D) 30

x	F(x)
-1	-6
2	12
-2	-12
5	30

CHECK IN

2) What is the *rule* for f(x)

x	f(x)
-10	20
2	-4
-2	4
5	-10

A) $f(x) = -2$

B) $f(x) = 2x$

C) $f(x) = -2x$

D) $f(x) = 4$

CHECK IN

3) Simplify the expression $X + 5X - 4 + 10 - 2X$

A) $6X + 6$

B) $4X + 14$

C) $6X - 14$

D) $4X + 6$

CHECK IN

4) If $\frac{x+1}{4} = \frac{x-3}{2}$, then x = ?

A) 8

B) 7

C) 3

D) 0

CHECK IN

5) Fill in the blank,

128, 64, 32, 16, 8, ___ , 2

A) 0

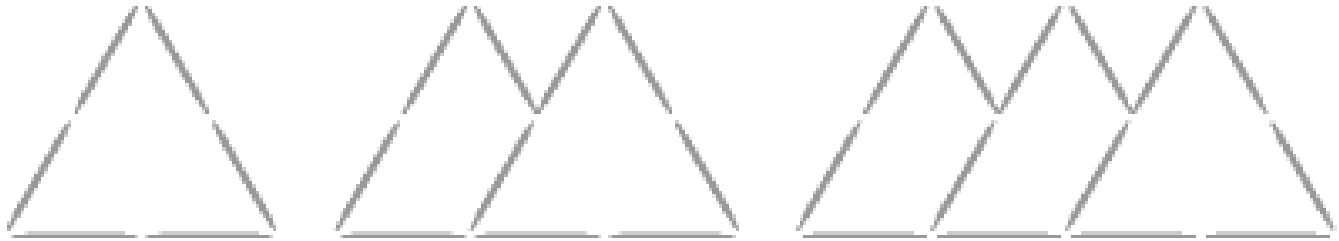
B) 6

C) 4

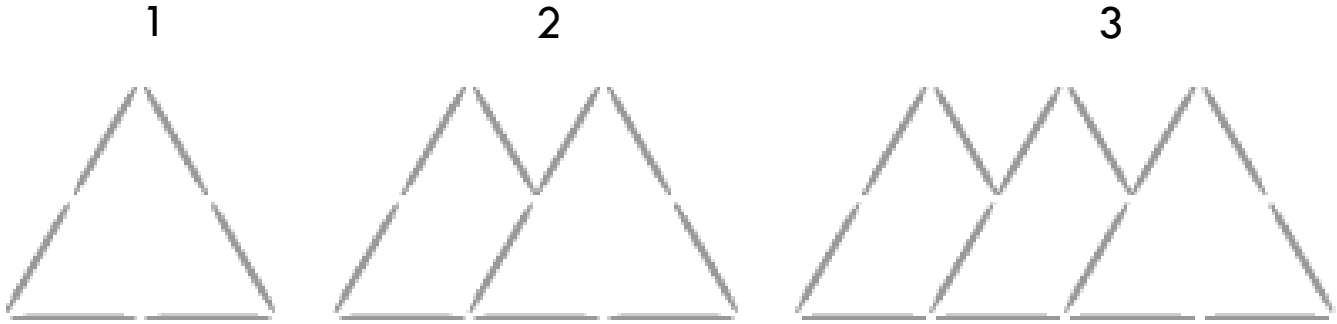
D) there is no pattern

DESCRIBE THE PATTERN IN AS MANY WAYS AS YOU CAN

You build the first trainable with 6 toothpicks , then you add the second , third, …. triangles as you see below



LET'S MAKE A TABLE



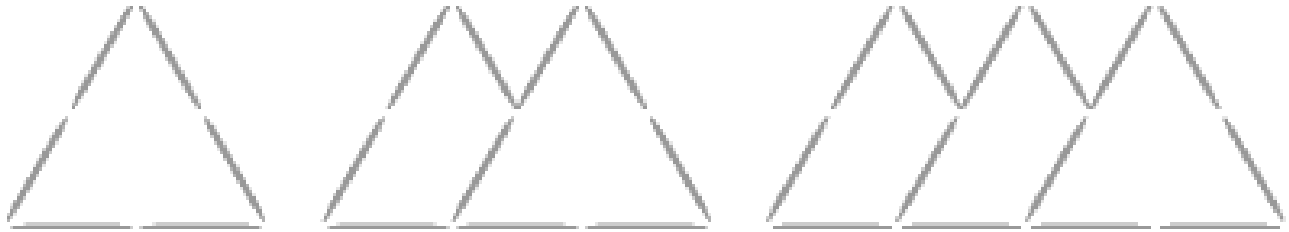
Pattern #	# of Triangles	# of Toothpicks
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	
7	7	

What patterns do you see?

How can we find the # of toothpick for 10 triangles?

SO WE HAVE 200 TRIANGLES, 500, . . . N ?
LET'S FIND A GENERAL RULE ?

Pattern #	# of Triangles n	# of Toothpicks T
1	1	6
2	2	10
3	3	14
4	4	18
10	10	
100		
200		



LET'S USE YOUR RULE TO FIND THE #OF TRIANGLES FOR THE #OF GIVEN TOOTHPICKS

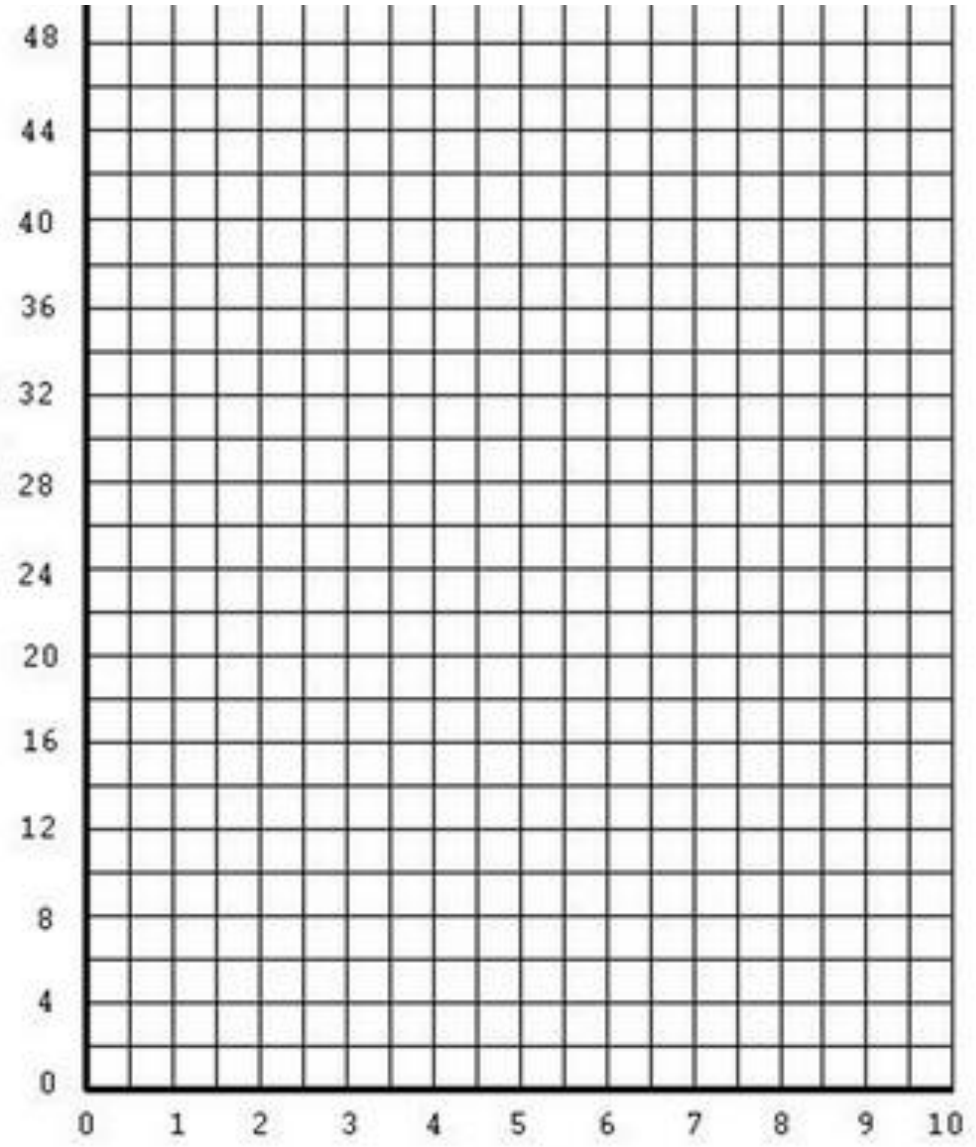
Pattern #	# of Triangles n	# of Toothpicks T
1	1	6
2	2	10
3	3	14
4	4	18
		26
		46
		102
		4002

LET'S GRAPH THIS!

$T = 4n + 2$

What do you expect the graph would look like ?

n	T
1	6
2	10
3	14
4	18
5	22
6	26
7	30



SO, WHAT DO YOU THINK IS THE RULE FOR THIS PATTERN ?

CHECK OUT

1) What is the value of F(-2)

A) -6

B) 12

C) -12

D) 30

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-2	-12
5	30

CHECK OUT

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C) 3

D) 0

CHECK OUT

5) Fill in the blank,

128, 64, 32, 16, 8, ___ , 2

A) 0

B) 6

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SUMMARY

Please write on the board

Write TWO things you learned in this session