Inspiring Greatness

ISD

INDEPENDENCE SCHOOL DISTRICT

Math Virtual Learning

HS/Essential Math II

May 21, 2020

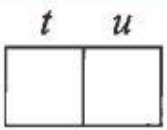
High School/Essential Math 2
Lesson: May 21, 2020
(U4L8 part II)

Objective/Learning Target

Multiply variables and combine like terms to consolidate their understanding of the structure of multiplication & sort out several common errors

BELLWORK

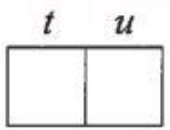
Who Am I?



- $t < u$
- The sum of my digits is 9.
- The product of my digits is 14.

(F)

Who Am I?



- The sum of my digits is 9.
- The product of my digits is 0.
- $t > u$

Bellwork

E Who Am I?

- $t < u$
- The sum of my digits is 9.
- The product of my digits is 14.

t	u
2	7

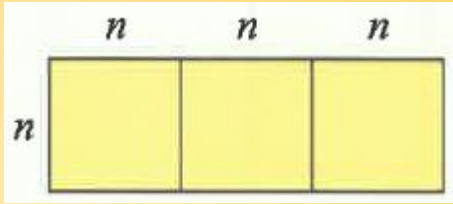
F Who Am I?

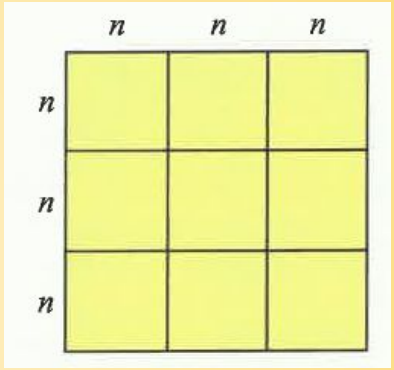
- The sum of my digits is 9.
- The product of my digits is 0.
- $t > u$

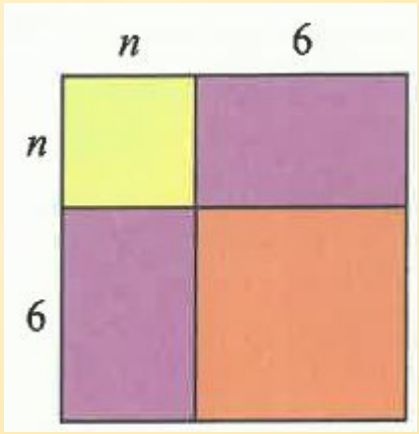
t	u
9	0

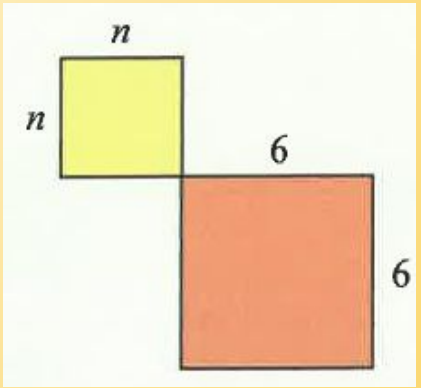
Lesson - Some shapes have multiple expressions

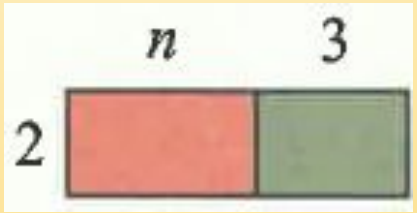
(a) Multiply n by two, then add six.	(b) Multiply n by three, then square the answer.
(c) Add six to n, then multiply by two.	(d) Add three to n, then multiply by two.
(e) Add six to n, then square the answer.	(f) Multiply n by three, then multiply by n.
(g) Square n, then add thirty-six.	(h) Square n, then multiply by nine.
(i) Square n, then multiply by 3.	(j) Multiply n by two, then add twelve.



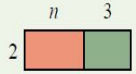








Lesson - Answer

① 

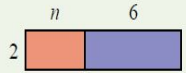
Ⓓ $2n + 6$

Ⓔ $2(n + 3)$

Attach the matching expressions and descriptions here

ⓐ Multiply n by two, then add six.

ⓓ Add three to n, then multiply by two.

② 

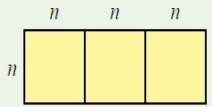
Ⓒ $2n + 12$

Ⓕ $2(n + 6)$

Attach the matching expressions and descriptions here

ⓒ Add six to n, then multiply by two.

ⓙ Multiply n by two, then add twelve.

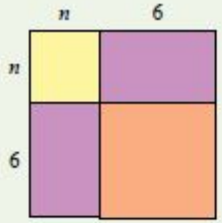
③ 

Ⓑ $3n^2$

Attach the matching expressions and descriptions here

ⓘ Square n, then multiply by 3.

ⓕ Multiply n by three, then multiply by n.

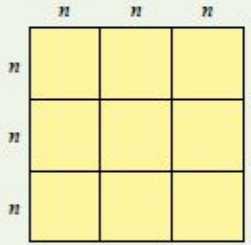


Ⓗ $(n + 6)^2$

Ⓘ $n^2 + 12n + 36$

Attach the matching expressions and descriptions here.

ⓔ Add six to n, then square the answer.



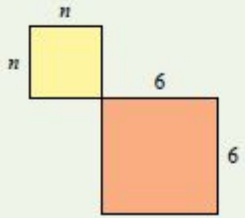
Ⓐ $9n^2$

Ⓖ $(3n)^2$

Attach the matching expressions and descriptions here.

ⓑ Multiply n by three, then square the answer.

ⓗ Square n, then multiply by nine.



Attach the matching expressions and descriptions here.

Ⓙ $n^2 + 6^2$

ⓖ Square n, then add thirty-six.

Stuff to Think About

TOUGH STUFF

14 $(c-21)(c+21) =$ _____

15 $(c-38)(c+38) =$ _____

ANSWERS Stuff to Think About

⑭ $(c-21)(c+21) =$ $c^2 - 441$

	c	20	1
c	c^2	20c	c
-20	-20c	-400	-20
-1	-c	-20	-1

⑮ $(c-38)(c+38) =$ $c^2 - 1444$

	30	8
30	900	240
8	240	64

900
240
240
+ 64
1444

(Methods will vary. Examples shown.)

There are different ways to use area models for these problems.

Additional Practice

Ⓖ $(x+6)(x-5) =$ _____

Ⓗ $(x-8)(x-5) =$ _____

Ⓘ $(x-y+3)(x+11) =$ _____

After combining like terms, there are 5 terms in the answer.

Ⓙ MysteryGrid **2, 3, 5, 7**

10,+			14,+
10,+		1,–	
35,•	3,–		
		4,–	

Additional Practice Key

G $(x+6)(x-5) =$ $x^2 + x - 30$

	x	-5
x	x^2	$-5x$
6	$6x$	-30

H $(x-8)(x-5) =$ $x^2 - 13x + 40$

	x	-5
x	x^2	$-5x$
-8	$-8x$	40

I $(x-y+3)(x+11) =$ $x^2 + 14x - xy - 11y + 33$

	x	11
x	x^2	$11x$
$-y$	$-xy$	$-11y$
3	$3x$	33

After combining like terms, there are 5 terms in the answer.

J MysteryGrid **2, 3, 5, 7**

10,+ 2	3	5	14,+ 7
10,+ 3	7	1,− 2	5
35,• 7	3,− 5	3	2
5	2	4,− 7	3

Today you learned to multiply variables and combine like terms to consolidate their understanding of the structure of multiplication & sort out several common errors

For additional practice, click the link: **Solve Me Mystery Grids**