



Math Virtual Learning

HS/Essential Math II

May 8, 2020



High School/Essentials of Algebra Course 2

Lesson: May 8, 2020(U4L4)

Objective/Learning Target:

Use area model thinking to apply the distributive property to multiplication problems.

Bellwork

61

★ = _____ ⬡ = _____ ● = _____

43

Who Am I?

- I am even.
- I am a multiple of 9.
- I am less than 70.
- $t > u$

t	u

44

Who Am I?

- I am a multiple of 7.
- My tens digit is less than my units digit.
- Both of my digits are even.

t	u

Bellwork Key

Figure out what you can and then plug in those answers

You know that $18/2 = 9$ so ● = 9

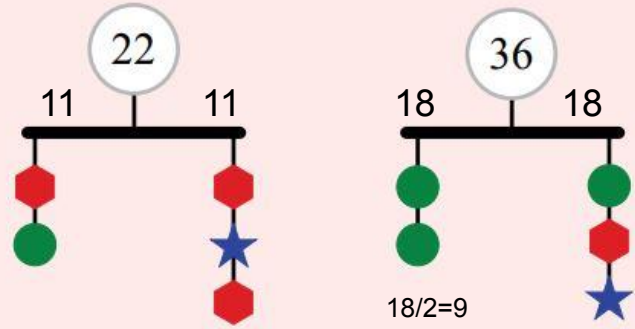
Go to the problem on the left $11-9=2$ so ❸ = 2

Fill in the rest of the problem. $11-4 = 7$

So ★ = 7

Now just plug and replace and finish the rest of the mobile

61



★ = 7 ❸ = 2 ● = 9

Who Am I?

- I am even.
- I am a multiple of 9.
- I am less than 70.
- $t > u$

t	u
5	4

44

Who Am I?

- I am a multiple of 7.
- My tens digit is less than my units digit.
- Both of my digits are even.

t	u
2	8

Stuff to Make You Think

Match each numerical expression with one of the area models.
You may use the same model more than once.

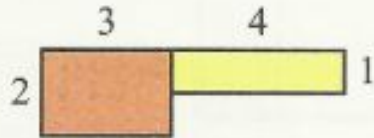
⑩ $2 \cdot (3 + 4)$

⑪ $2 \cdot 3 + 4$

⑫ $4 + 3 \cdot 2$

⑬ $2 \cdot 3 + 2 \cdot 4$

Ⓐ



Ⓑ



Find the total area of each of these shapes.

⑭ Shape A

⑮ Shape B

Answers Stuff to Make You Think

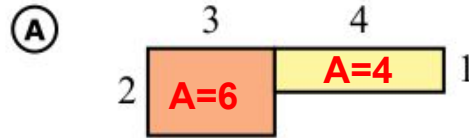
Match each numerical expression with one of the area models.
You may use the same model more than once.

⑩ $2 \cdot (3 + 4)$ *B*

⑪ $2 \cdot 3 + 4$ *A*

⑫ $4 + 3 \cdot 2$ *A*

⑬ $2 \cdot 3 + 2 \cdot 4$ *B*



Find the total area of each of these shapes.

⑯ Shape A *10 units²*
 $6 + 4 = 10$

⑰ Shape B *14 units²*
 $6 + 8 = 14$

Additional Practice

Fill in all the blanks and use the area models to multiply.

(A)

	50	2
40		
8		

 $52 \cdot 48 =$ _____

(B)

	70	4
20	1400	
2		

 $22 \cdot 74 =$ _____

(C)

	20	9
10	200	

 $10 \cdot 29 =$ _____

(E)

	20	9
10		
5		

 $15 \cdot 29 =$ _____

(D)

	20	9
5		

 $5 \cdot 29 =$ _____

(F) How could you use your answers to problems C and D to get the answer to problem E?

Additional Practice Key

Fill in all the blanks and use the area models to multiply.

(A)

	50	2	
40	2000	80	
8	400	16	

$52 \cdot 48 = \underline{2496}$

$2000 + 80 + 400 + 16 = 2496$

$50 \cdot 40 = 2000$ $40 \cdot 2 = 80$

$8 \cdot 50 = 400$ $8 \cdot 2 = 16$

(B)

	70	4	
20	1400	80	
2	140	8	

$22 \cdot 74 = \underline{1628}$

$1400 + 80 + 140 + 8 = 1628$

$70 \cdot 20 = 1400$ $20 \cdot 4 = 80$

$70 \cdot 2 = 140$ $2 \cdot 4 = 8$

(C)

	20	9	
10	200	90	

$10 \cdot 29 = \underline{290}$

$200 + 90 = 290$

$20 \cdot 10 = 200$ $90 \cdot 10 = 90$

(D)

	20	9	
5	100	45	

$5 \cdot 29 = \underline{145}$

$100 + 45 = 145$

$5 \cdot 20 = 100$ $9 \cdot 5 = 45$

(E)

	20	9	
10	200	90	
5	100	45	

$15 \cdot 29 = \underline{435}$

$200 + 90 + 100 + 45 = 435$

$10 \cdot 20 = 200$ $10 \cdot 9 = 90$

$5 \cdot 20 = 100$ $9 \cdot 5 = 45$

- (F)** How could you use your answers to problems C and D to get the answer to problem E?

Add them together.

Draw an area model and use it to multiply

Mystery Grids

Lesson: May 8, 2020 (U4L4.1)

Today you:

Built your working memory & the ability to coordinate multiple constraints.
Sharpened familiarity with properties of numbers & operations
Sharpened arithmetic skills (recognizing multiples, factors, etc.)

For additional practice, click the link: **[Solve Me Mystery Grids](#)**