Math Virtual Learning

HS/Essential Math II

May 6, 2020

High School/Essentials of Algebra Course 2
Lesson: May 6, 2020(U4L3)
Objective/Learning Target:

- Understand the relationship between area & multiplication & use it to reason about numerical & polynomial multiplication.

Mental Math * Activity 3:

Dividing 2-digit numbers by 10

50	
10	
90	
91	
92	

50	
40	
49	
20	
23	

70	
72	
80	
82	
78	

60	
61	
71	
40	
39	

Mental Math * Activity 3:

Dividing 2-digit numbers by 10

50	**5**
10	**1**
90	**9**
91	**9.1**
92	**9.2**

50	**5**
40	**4**
49	**4.9**
20	**2**
23	**2.3**

70	**7**
72	**7.2**
80	**8**
82	**8.2**
78	**7.8**

60	**6**
61	**6.1**
71	**7.1**
40	**4**
39	**3.9**

Lesson

IMPORTANT STUFF

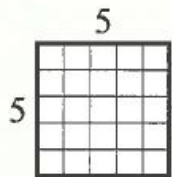①
6
4

Area: _____

Perimeter: _____

②
8
3
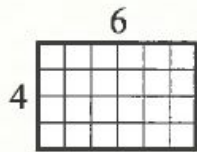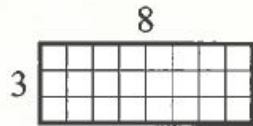
Area: _____

Perimeter: _____

Perimeter is the distance all the way around the *outside* edge of a figure. The perimeter of ▭ is 6 unit lengths.

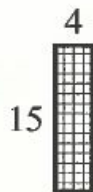**Area** is the amount of stuff *inside*. The area of ▭ is 2 squares.
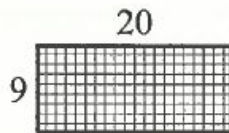
③
5
5

Area: _____

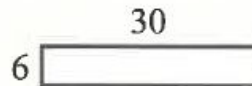Perimeter: _____

④
4
15

Area: _____

Perimeter: _____

⑤
20
9

Area: _____

Perimeter: _____

⑥
30
6

Area: _____

Perimeter: _____

Answer

Perimeter is the distance all the way around the *outside* edge of a figure. The perimeter of ▭ is 6 unit lengths.

Area is the amount of stuff *inside*. The area of ▭ is 2 squares.
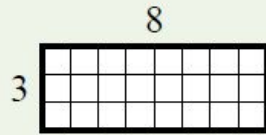
① 6 / 4
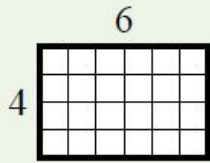
Area: $24 = (4)(6)$

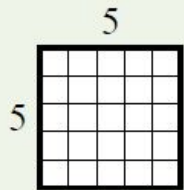Perimeter: $20 = 4+4+6+6 = 2(4+6)$

② 8 / 3

Area: $24 = (3)(8)$
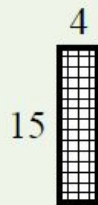
Perimeter: $22 = (3+3)(8+8) = 2(3+8)$

③ 5 / 5

Area: $25 = (5)(5)$
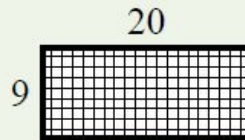
Perimeter: $20 = 2(5+5)$

④ 4 / 15

Area: $60 = (4)(15)$

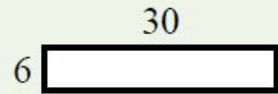Perimeter: $38 = 2(4+15)$

⑤ 20 / 9

Area: $180 = (9)(20)$

Perimeter: $58 = 2(9+20)$

⑥ 30 / 6

Area: $180 = (30)(6)$

Perimeter: 72

$= (30)(6)$

Stuff to Make You Think

㉕

$$5 \cdot 28 = 5(20 + \underline{\quad}) = 5 \cdot \underline{\quad} + 5 \cdot 8 = \underline{\quad} + \underline{\quad} = \underline{\quad}$$

㉗
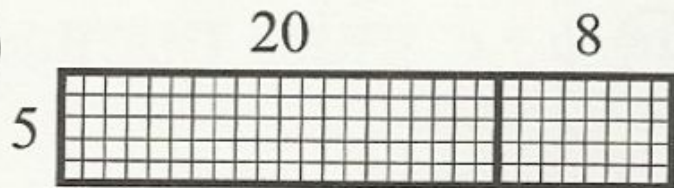
$$4 \cdot 29 = \underline{\quad}$$

ANSWERS Stuff to Make You Think

25.

20   8

5

$5 \cdot 28 = 5(20 + \underline{8}) = 5 \cdot \underline{20} + 5 \cdot 8 = \underline{100} + \underline{40} = \underline{140}$

27.

20	9
80	36

4

$4 \cdot 29 = \underline{116}$

(4)(29) = 4(20) + 4(9) = 80 + 36 = 116

Additional Practice

Multiple: The product result of multiplying one number by another number

For example, 2, 4, 6, 8, and 10 are **multiples** of 2. To get these **numbers**, you multiplied 2 by 1, 2, 3, 4, and 5,

Sum: The result of adding numbers together
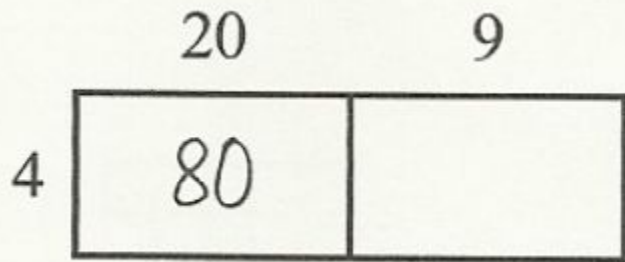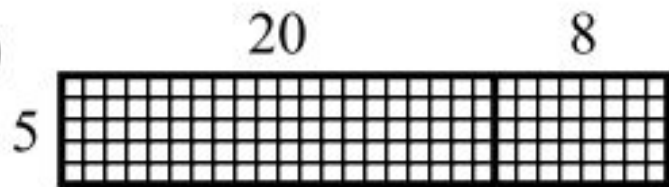
Product: The result when you multiply two or more numbers together

(E) **5, 6, 7, 8 Latin Square**

			7
6			
7		8	6
		6	
8	6		

(F) MysteryGrid **1, 2, 3**

6,•		
9,•		3,+
2		

(G) MysteryGrid **5, 7, 9**

35,•		63,•
45,•		
7	14,+	

(H) Who Am I?
- I am odd.
- $u = h + 1$
- My units digit is my largest digit.
- My hundreds digit is my only even digit.
- $u = 3t$
- $h + t + u = 20$

h	t	u

(I) Who Am I?
- I am a multiple of 8.
- The sum of my digits is 12.
- $u \geq t$
- I am between 35 and 55.

t	u

(J) Who Am I?
- The product of my digits is 5.
- The sum of my digits is 6.
- I am divisible by 3.
- $u = t + 4$

t	u

Notice the Pattern in the Latin Square. Patterns are present in both the Mystery Grid and the Latin Squares

Additional Practice Key

E **5, 6, 7, 8** Latin Square

6	8	5	7
7	5	8	6
5	7	6	8
8	6	7	5

F MysteryGrid **1, 2, 3**

6, •		
1	2	3
9, •		3, +
3	1	2
2		
2	3	1

G MysteryGrid **5, 7, 9**

35, •		63, •
5	7	9
45, •		
9	5	7
7	14, +	
7	9	5

H Who Am I?

- I am odd.
- My units digit is my largest digit.
- $u = 3t$
- $u = h + 1$
- My hundreds digit is my only even digit.
- $h + t + u = 20$

h	t	u
8	3	9

I Who Am I?

- I am a multiple of 8.
- The sum of my digits is 12.
- $u \geq t$
- I am between 35 and 55.

t	u
4	8

J Who Am I?

- The product of my digits is 5.
- The sum of my digits is 6.
- I am divisible by 3.
- $u = t + 4$

t	u
1	5

Lesson: April 30, 2020 (U4L1 part II)
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**

Mystery Grids