Math Virtual Learning

Essential Math 4

May 6, 2020

Lesson: May 6, 2020

Objective/Learning Target:
I can use multiplication to understand exponents.

You will explore the use of multiplication and its relationship to exponents.

Directions:

1. Click through the slides.
2. Watch all videos on slides.
3. Do what each slide asks on a separate sheet of paper.

Bell Work: May 6

① Fill in the empty cells in this table.

Instructions	Pictures	Jing	Mali	Jacob
Think of a number.		9		11
		12		14
			6	
Add 4.		28		32
			5	16
Subtract your original number.		5		

Bell Work
Key
May 6

Instructions	Pictures	Jing	Mali	Jacob
Think of a number.		9	0	11
Add 3.		12	3	14
Multiply by 2.		24	6	28
Add 4.		28	10	32
Divide by 2.		14	5	16
Subtract your original number.		5	5	5

Practice Problems: Unit 11 Lesson 1 (page 7, #A)

(A) Determine whether the story shows growth by addition or by multiplication. Sketch a graph for each story.

(i) You made a webpage. The number of visits tripled every week.

Is this growth by addition or multiplication?
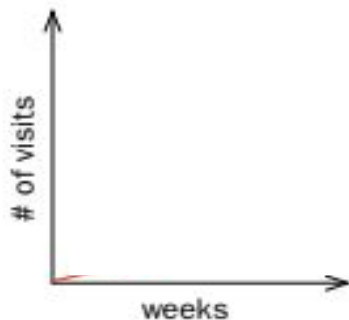
(ii) You made a webpage. Each week, a hundred more people wrote comments on your site.

Is this growth by addition or multiplication?

(iii) Every time you get a paycheck, you buy another game for your phone.

Is this growth by addition or multiplication?

# of visits | weeks

# of people leaving comments | weeks

# of games | # of paychecks received

Answer Key: After completing the problems, check your answers for page 7 here.

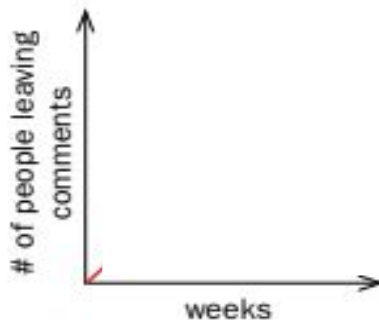(A) Determine whether the story shows growth by addition or by multiplication. Sketch a graph for each story.

(i) You made a webpage. The number of visits tripled every week.
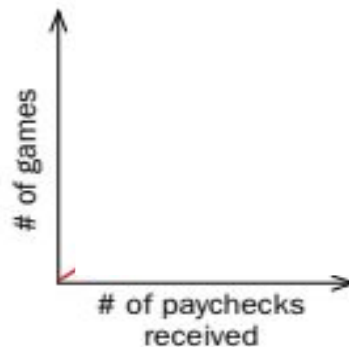
Is this growth by addition or multiplication?

multiplication

# of visits

weeks

(ii) You made a webpage. Each week, a hundred more people wrote comments on your site.

Is this growth by addition or multiplication?

addition

# of people leaving comments

weeks

(iii) Every time you get a paycheck, you buy another game for your phone.

Is this growth by addition or multiplication?

addition

# of games

# of paychecks received

Practice Problems: Unit 11 Lesson 1 (page 7, #B)

(B) Figure out the pattern in each table and describe the growth. Is the pattern based on constant addition or constant multiplication? By how much?

(i)

x	y
1	7
2	14
3	21
4	28
5	35
6	42

(ii)

x	y
1	5
2	10
3	20
4	40
5	80
6	160

Answer Key:
After completing the problems, check your answers for page 7 here.

(i)

x	y
1	7
2	14
3	21
4	28
5	35
6	42

+ 7
+ 7
+ 7
+ 7
+ 7

addition of 7

(ii)

x	y
1	5
2	10
3	20
4	40
5	80
6	160

• 2
• 2
• 2
• 2
• 2

multiplication by 2

Practice Problems: Unit 11 Lesson 1 (page 7, #B)

(B) Figure out the pattern in each table and describe the growth. Is the pattern based on constant addition or constant multiplication? By how much?

(iii)

x	y
1	3
2	15
3	27
4	39
5	51
6	63

(iv)

x	y
1	7
2	14
3	28
4	56
5	112
6	224

Answer Key:
After completing the problems, check your answers for page 7 here.

(iii)

x	y
1	3
2	15
3	27
4	39
5	51
6	63

+12
+12
+12
+12
+12

addition of 12

(iv)

x	y
1	7
2	14
3	28
4	56
5	112
6	224

• 2
• 2
• 2
• 2
• 2

multiplication by 2

Practice Problems: Unit 11 Lesson 1 (page 7, #C-D)

(C) Write a situation in which a quantity grows by addition.

(D) Write a situation in which a quantity grows by multiplication.

Answer Key:

After completing the problems, check your answers for page 7 here.

Ⓒ Write a situation in which a quantity grows by addition.

Responses will vary. The quantity must have a constant rate of change.

Ⓓ Write a situation in which a quantity grows by multiplication.

Responses will vary. Situations may involve doubling, tripling, or other descriptions of multiplication.

Fun Stuff:

⑨ ___ ← Find the total weight.

★ = 10   ♣ = _____

Fun Stuff Key:

⑨

50 ←Find the total weight.

★ = 10   ♣ = _5_

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