



Summer Package
Grade 3 going to Grade 4
(Week 2)
2018

Week 2 ----Grade 3 going to Grade 4

Name _____

Date _____

1. The carnival is in town for 21 days. How many weeks is the carnival in town? (There are 7 days in 1 week.) Write an equation, and solve.

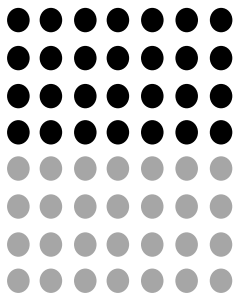
2. There are 48 liters of water needed to finish filling the dunk tank at the carnival. Each container holds 8 liters of water. How many containers are needed to finish filling the dunk tank? Represent the problem using multiplication and division sentences and a letter for the unknown. Solve.

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \div \underline{\quad} = \underline{\quad}$$

3. There are 4 rows of 7 chairs setup for the Magic Show. A worker sees the large number of people lined up and doubles the number of rows of chairs. They are shown below.

Explain and label to show how the array represents both 8×7 and $2 \times (4 \times 7)$.



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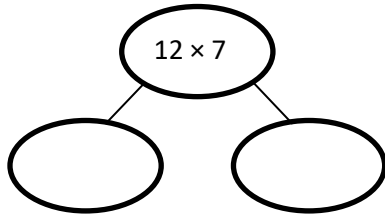
- 4.
- a. Fabrizio wins a bumblebee doll with 6 stripes. He notices that 5 other children in line for the Magic Show won the same doll. How many stripes are on 6 bumblebee dolls? Write an equation using a letter to represent the unknown. Solve.

The magician uses a magic box. Every time he puts an object in, it gets multiplied. Fabrizio writes down what happens each time and tries to find a pattern. Look at his notes to the right.

- b. Use the pattern to fill in the number of bean bags.
- c. What does the magic box do? Explain how you know.

In	Out
2 Feathers	14 Feathers
3 Marbles	21 Marbles
4 Dice	28 Dice
5 Wands	35 Wands
6 Bean bags	___ Bean bags

- d. The magician puts 12 rings into the magic box. Fabrizio draws a number bond to find the total number of rings after they are multiplied in the magic box. Use the number bond to show how Fabrizio might have solved the problem.



- e. After the show, Fabrizio and 5 friends equally share the cost of a \$54 magic set. They use the equation $6 \times n = \$54$ to figure out how much each person pays. How much does Fabrizio pay?
5. Aunt Korina and her 3 friends decide to share a cab to go to the mall. If they each spent \$6, how much did the cab ride cost altogether? Write an equation using a letter to represent the unknown. Solve.

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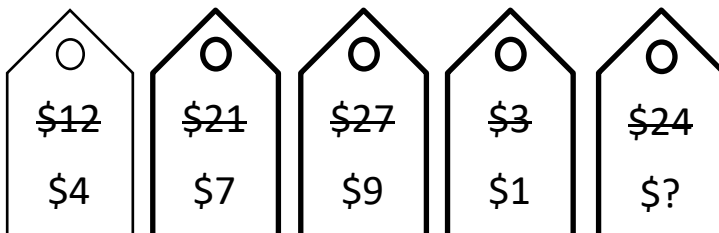
6. Aunt Korina's 3 friends each order pasta and a lemonade for lunch. Aunt Korina orders only chicken salad.

- a. Use the menu to find how much they spend altogether. Write equations using letters to represent the unknown. Solve.

Lunch Menu	
Pasta	\$7
Chicken Salad	\$9
Lemonade	\$2

- b. Aunt Korina mentally checks the total using $4 \times \$9$. Explain her strategy.

7. After lunch, the friends notice a sale. Compare the crossed out prices to the new sale prices. If all sale prices are calculated in the same way, what would the sale price be on an item that originally cost \$24? Use words and equations to explain how you know.

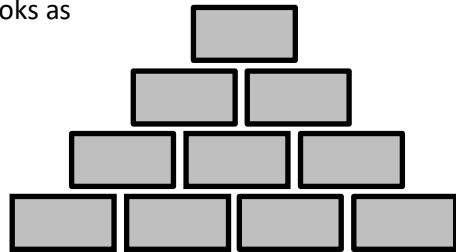


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8. a. A shopkeeper in the bookstore arranges the boxed sets of books as shown to the right.

If each box contains 9 books, how many books are there?

- Write an equation using a letter to represent the unknown, and then solve.
- Explain how you know your answer is reasonable.



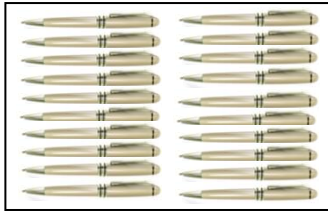
- b. Aunt Korina figures out how many books are in the arrangement. Her work is shown below. Explain Aunt Korina's strategy.

$$10 \times 10 - 10 = 90$$

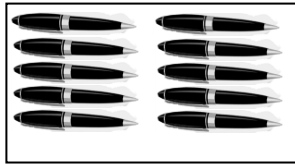
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- c. In the book store, Aunt Korina buys 3 boxes of pens. Each box contains 2 bundles of 10 gray pens. Her friend buys 6 packs of pens. Each pack contains 10 black pens. Explain how the equation below shows how Aunt Korina and her friend buy the same number of pens.

$$6 \times 10 = 3 \times 2 \times 10$$

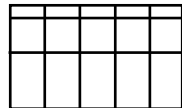
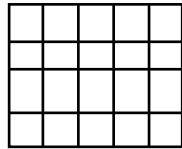
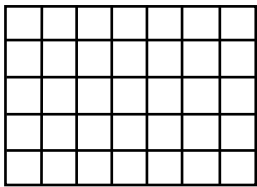


Box of Gray Pens



Pack of Black Pens

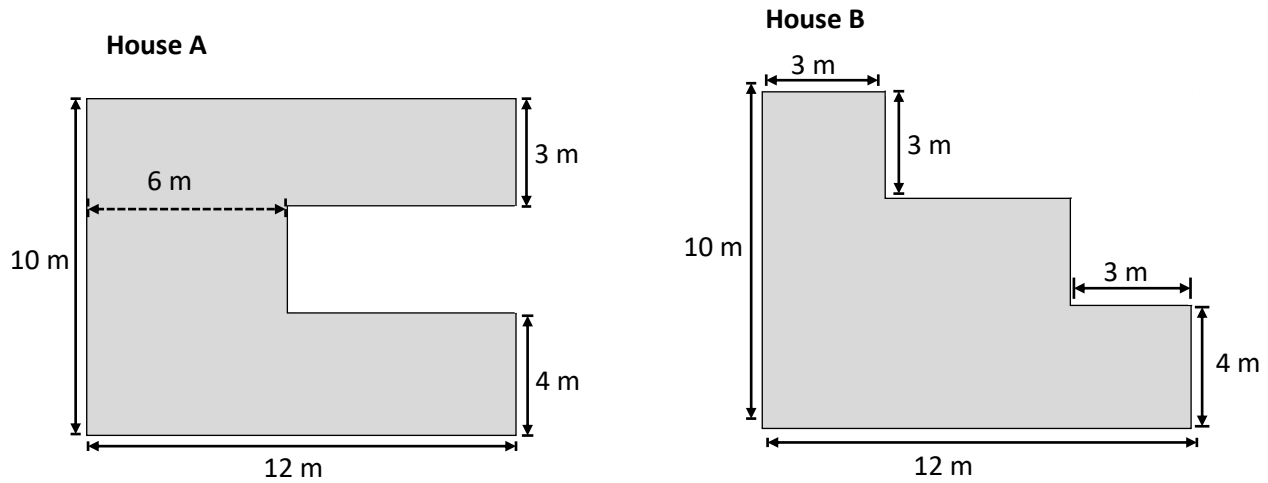
9. Sarah says the rectangle on the left has the same area as the sum of the two on the right. Pam says they do not have the same areas. Who is correct? Explain using numbers, pictures, and words.



10. Draw three different arrays that you could make with 36 square inch tiles. Label the side lengths on each of your arrays. Write multiplication sentences for each array to prove that the area of each array is 36 square inches.

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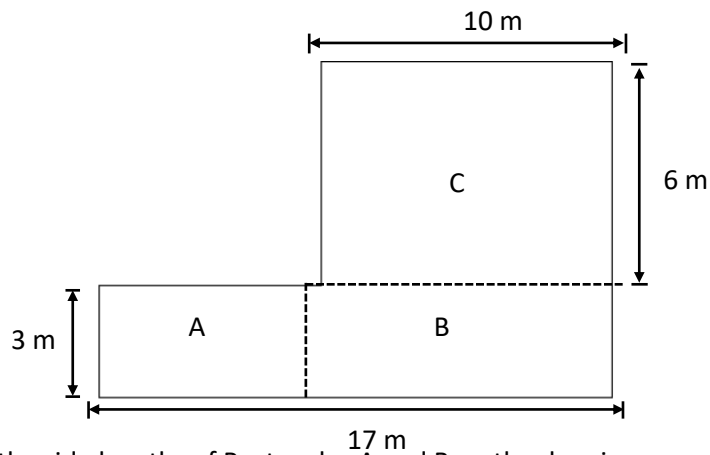
11. Mr. and Mrs. Jackson are buying a new house. They are deciding between the two floor plans below.



Which floor plan has the greater area? Show how you found your answer on the drawings above. Show your calculations below.

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12. Superior Elementary School uses the design below for their swimming pool. Shapes A, B, and C are rectangles.



- Label the side lengths of Rectangles A and B on the drawing.
- Find the area of each rectangle.
- Find the area of the entire pool. Explain how you found the area of the pool.