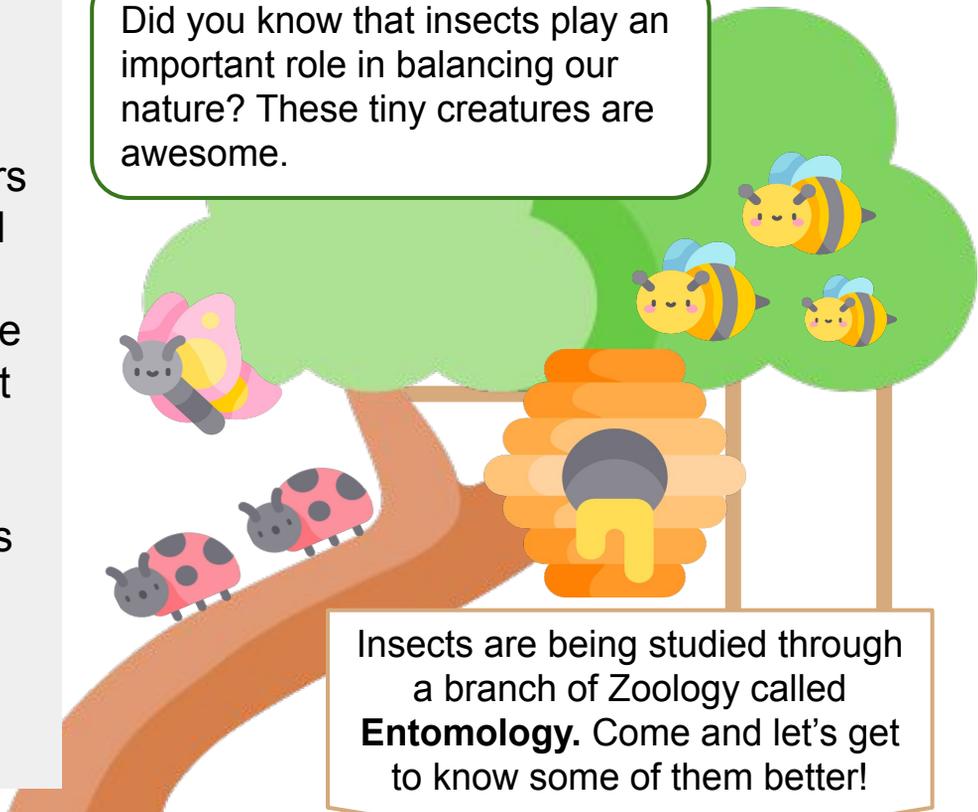## Decomposition of Numbers

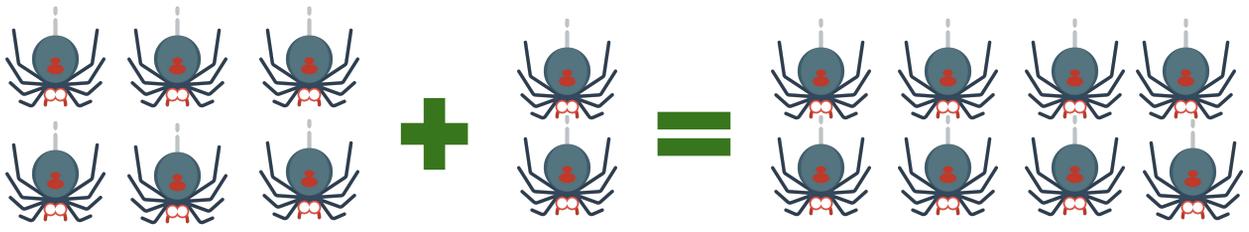*Suitable for students* **aged 5-7**

This pack is suitable for learners aged 5-7 years old or 1st and 2nd graders (USA). The content covers fact files and relevant basic and advanced activities involving decomposition of numbers

Did you know that insects play an important role in balancing our nature? These tiny creatures are awesome.

Insects are being studied through a branch of Zoology called **Entomology.** Come and let's get to know some of them better!

How many spiders are needed to make a set of 8 spiders?

6 + ___ = 8

DECOMPOSITION OF NUMBERS

Decomposing numbers means to break down numbers into their sub-parts. The first step is to decompose numbers by their place value and the second step is to show how any number can be created using a variety of addends.
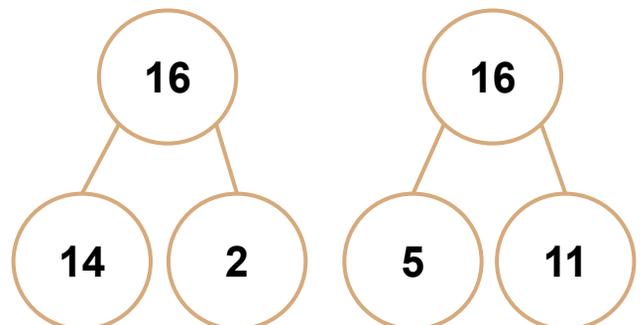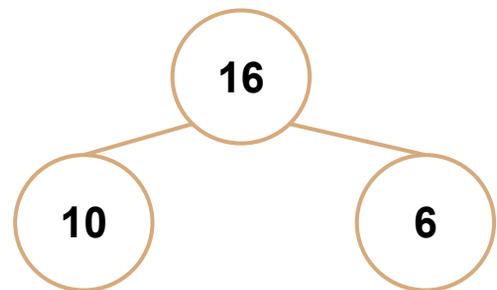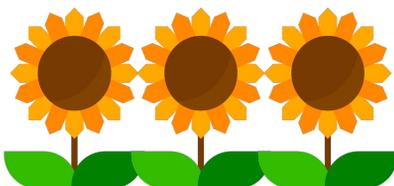
METHODS TO DECOMPOSE

1ST

For example, we can decompose 16 into set of tens and ones. Thus, 16 is now split into 10 and 6.

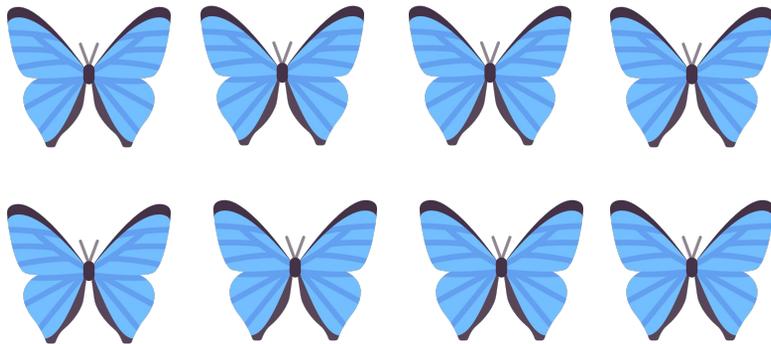**NUMBER**

TENS — **ONES**

16

10   6

2ND

Using the other method, we can use variety of addends to decompose the number. For example, there are many ways to decompose the number 16, we can have 2 and 14, 5 and 11, 8 and 8, 15 and 1, and etc.

NUMBER

ADDENDS   **ADDENDS**

16   16

14   2   5   11

DECOMPOSITION OF NUMBERS

8 butterflies

To make 8 butterflies, we can have:

2 + 6 = 8 butterflies

4 + 4 = 8 butterflies

Now, let's think of three other ways to make a group of 8 butterflies by completing the equations below.

7 + ___ = 8

5 + ___ = 8

3 + ___ = 8

Did you know?

Did you know that butterflies have 2 hearts? They are called "wing hearts" It is located in their wings that pump blood and regulate temperatures.
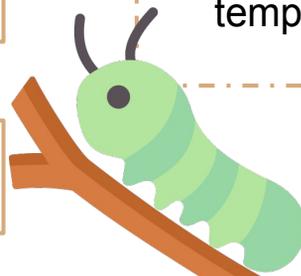
TABLE OF ACTIVITIES

Ages 5-6 (Basic)		1st Grade
1	Hop! Hop! Hop!	
2	Where is my path?	
3	Bee-Wise	
4	Pollination	
5	Stay Away from Me	
Ages 6-7 (Advanced)		2nd Grade
6	Way to the Queen	
7	Hatchy Matchy	
8	Gleam, Glow, and Glare	
9	The Weavers	
10	Please Help Me! I'm Hungry	

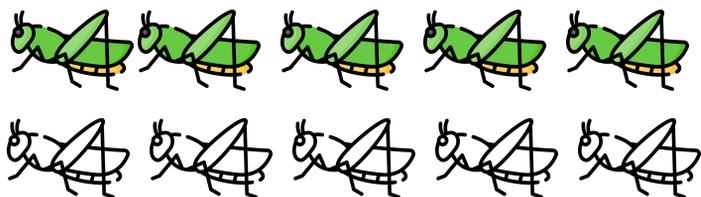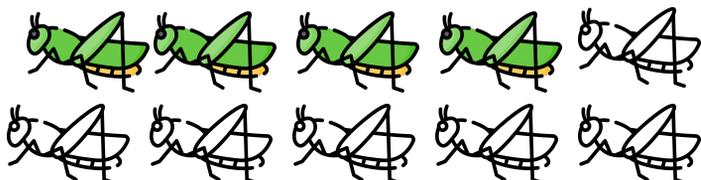# HOP! HOP! HOP!

Grasshoppers are ground-dwelling insects with the ability to jump long distances to evade threats and move from one place to another. Now, color the grasshoppers to make 10 and complete the number sentence before they return to their own habitats.
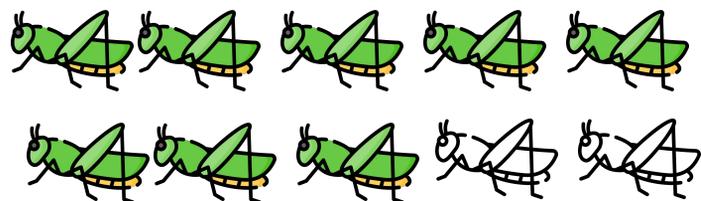
1

$$5 + \boxed{} = 10$$
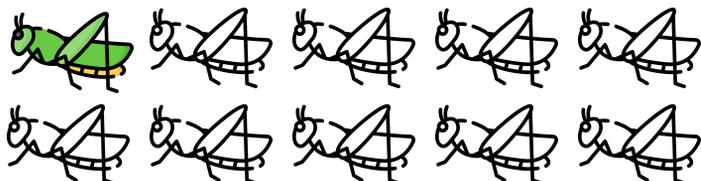
2

$$\boxed{} + 6 = 10$$

3

$$8 + \boxed{} = 10$$

4

$$\boxed{} + 9 = 10$$

5

$$3 + \boxed{} = 10$$

WHERE IS MY PATH?
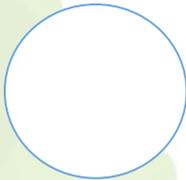
Moths are nocturnal, but many fly during the day. They also fly in different directions. Now, you need to know how many of them are going to two different directions, to the left and right. Write your answer on the circle.
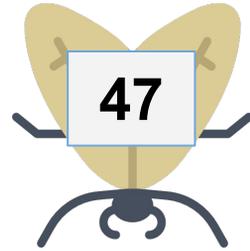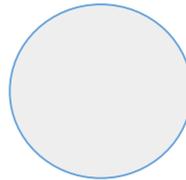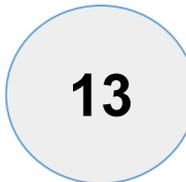
1

39

30

2

47

7

3

14

8

4

26

13

BEE-WISE

The honey bee is the only insect that produces food eaten by man. You have to solve the riddle by the queen bee to get the honeycomb. Choose and write the letter that corresponds to your answer as you complete each equation.

U $10 + 4 = \bigcirc$

B $\bigcirc + 7 = 37$

Y $40 + 3 = \bigcirc$

E $\bigcirc + 9 = 29$

T $30 + \bigcirc = 35$

A $\bigcirc + 8 = 18$

30	20	10	14	5	43

POLLINATION

Insects are good pollinators. They visit different plants or flowers to sip nectars and it allows them to carry pollens which helps to the fertilization of plants. Now, answer what is being asked and write your answer on the space provided.

I visited a total of 15 flowers today. Some of them are gumamelas and the remaining are sunflowers. How many of these could be the sunflowers, if 7 of them are gumamelas?

What is asked?

What are the given numbers?

Final answer:

Solution:

_____

I perched on 3 kinds of flowers today, 12 lavenders, 8 pink cosmos and some tulips. If I landed on 25 flowers in total, how many tulips I alighted on?

What is asked?

What are the given numbers?

Final answer:

Solution:

_____

STAY AWAY FROM ME

Flies are a large group of insects with only one pair of wings. They are able to see behind them so that nothing can easily deceive them. However, flies could be very annoying. But, if you decompose the numbers correctly, they will stay away from you. Write your answer in the blank. Good luck!
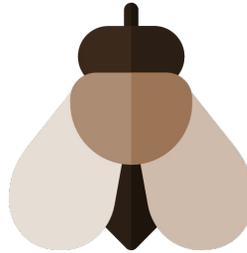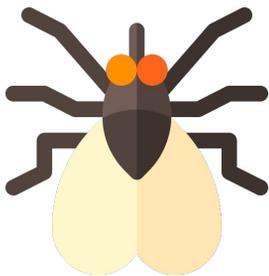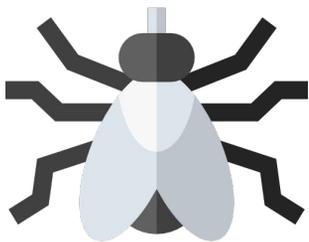
1

76

tens   ones

_____   _____

2

22

tens   ones

_____   _____

3

31

tens   ones

_____   _____

4

69

tens   ones

_____   _____
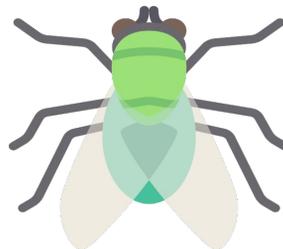
5

45

tens   ones

_____   _____

6

98

tens   ones

_____   _____

WAY TO THE QUEEN

Worker ants are all female, and this sisterhood go outside to gather food and bring it to the queen. But there are rocks obstructing along their way! Help them to break it by decomposing the numbers by their place value. Write your answer on the box. Hint: You can use the first method.

Butterflies undergo to the process called metamorphosis. Before they became one, they are inside the chrysalis or cocoon and wait for several hours to turn into a beautiful creature. Let us predict the color of the new butterflies. Write your answer on the space provided.

1. It is my 6th day now and I still need 13 days to become mature. Can you guess my color? _____

2. Tomorrow is my day. I am very excited to see the world after waiting for about 11 days. _____

3. 5 days of being a pupa is great! And I think I am going to be a complete butterfly after 3 days. _____

5 - 10 days   **11 - 15 days**   **16 - 21 days**

GLEAM, GLOW, AND GLARE

Fireflies are our natural light especially at night. An area needs 99 fireflies to be lighted. Your task is to complete all the number of fireflies to create a glowing night. Put the letter in the box.

C. 69

B. 45

D. 54

A. 13

E. 23

J. 70

F. 29

I. 20

G. 27

H. 30

F + ☐ = 99

☐ + C = 99

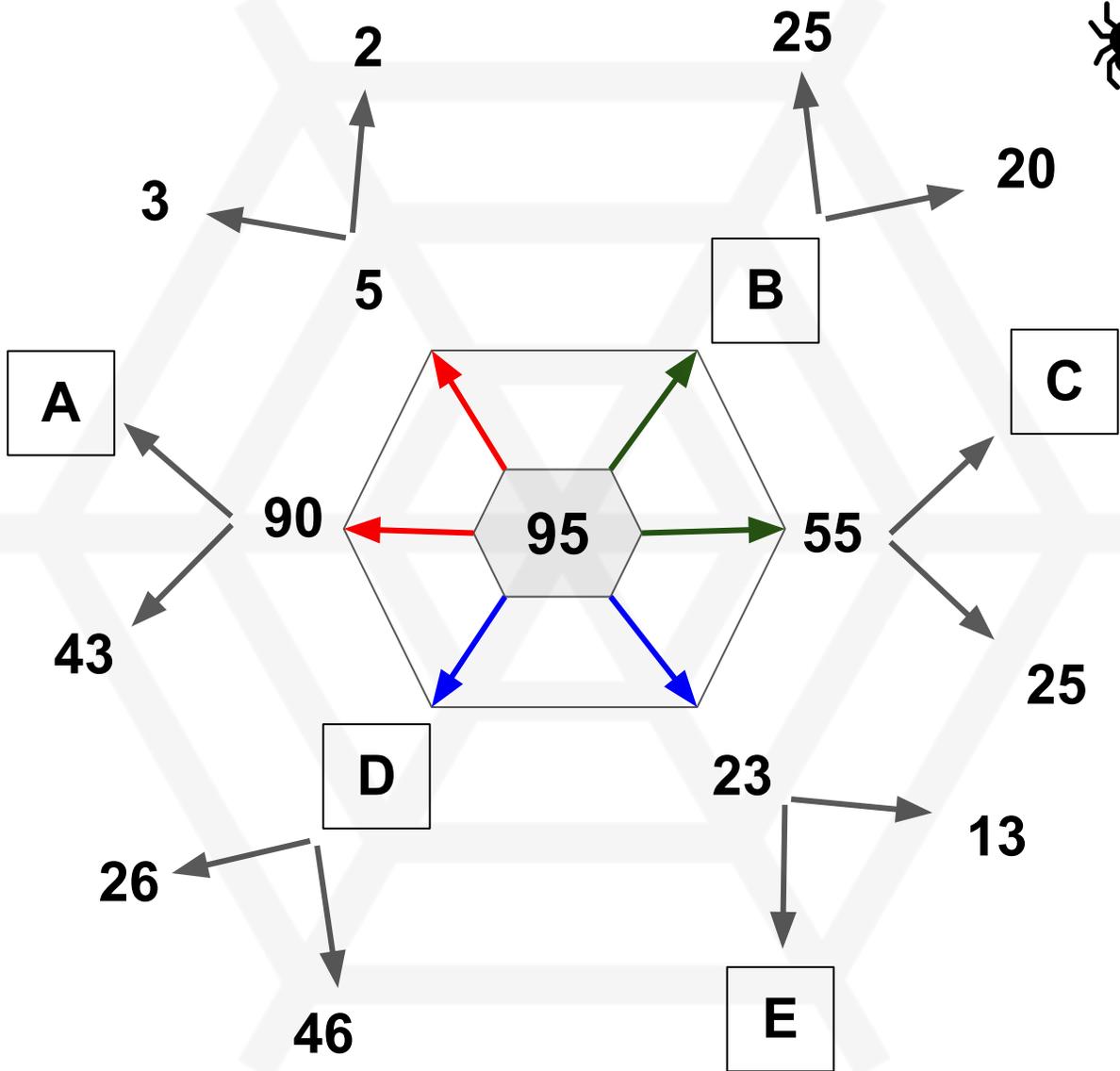☐ + ☐ = 99

THE WEAVERS

Spiders spin webs to protect their eggs or as a hunting tool. They can also use webs for transport. However, they are constantly getting damaged by Mother Nature. Help the spiders to build new web by decomposing the number in the middle. Write your answer on the table.
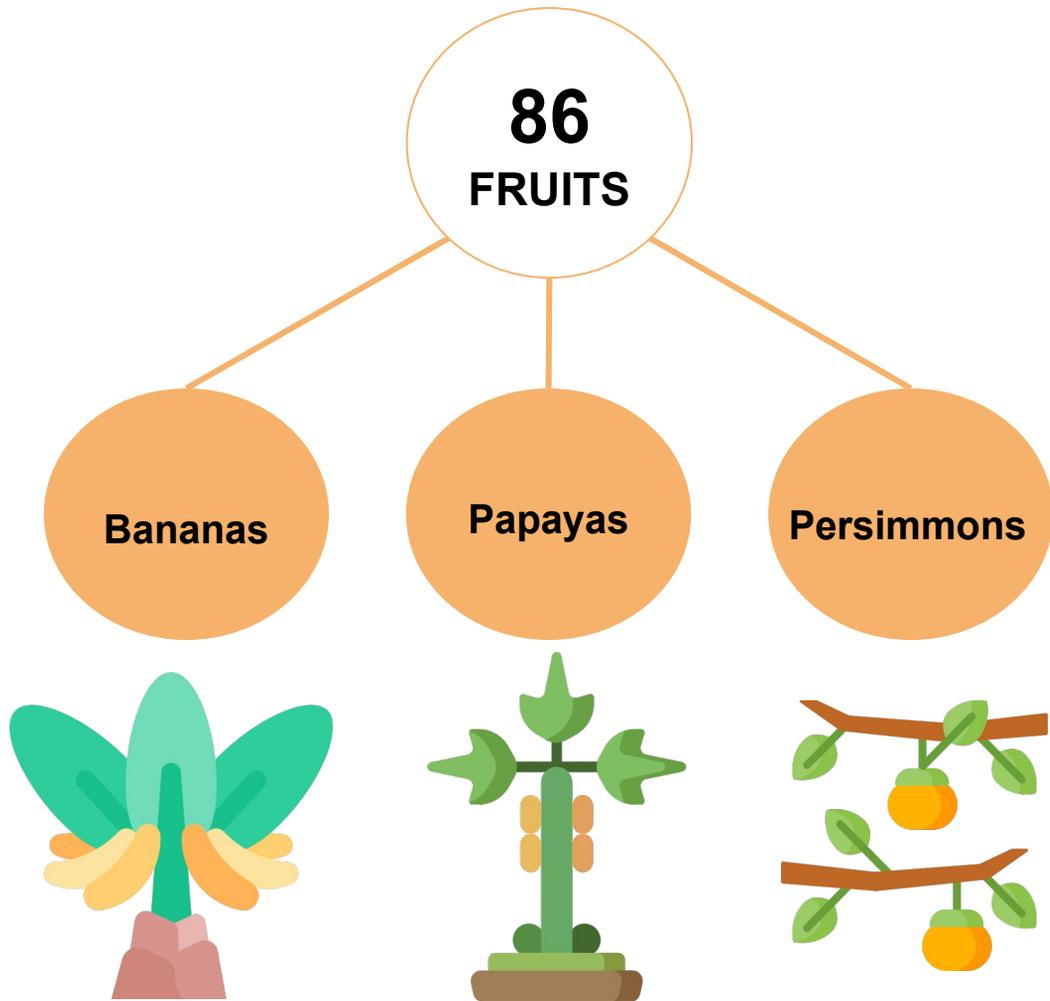
2

25

3

20

5

B

A

C

90   95   55

43

25

D

23

26

13

46

E

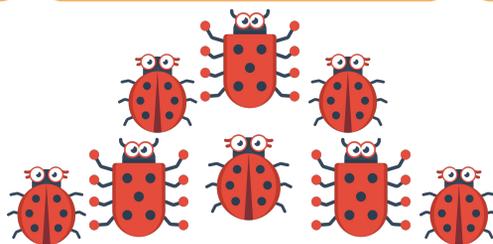| A =	B =	C =	D =	E =

PLEASE HELP ME! I'M HUNGRY

A group of ladybugs wants to eat. They want to eat fruits from different trees. Fruits with high sugar content and non-acidic fruits are the ladybug's favorites. Determine how many of each fruit they ate, given by the following hints. Write your answer on the circle.

86 FRUITS

Bananas

Papayas

Persimmons

We like bananas so much. Half of the total fruits are bananas.

We also love papayas. They are very delicious.

We love persimmons than papayas so that it is more than 3 compared to the number of papayas.

ANSWER GUIDE

Activity 1

1. 5   2. 4   3. 2
        4. 1   5. 7

Activity 2

1. 9   2. 40
3. 6   4. 13

Activity 3

U = 14   B = 30   Y = 43   E = 20   T = 5   A = 10
WORD: BEAUTY

Activity 4

1. 8
2. 5

Activity 5

1. 7 & 6   4. 6 & 9
2. 2 & 2   5. 4 & 5
3. 3 & 1   6. 9 & 8

Activity 6

1. 20 & 7   2. 30 & 4   3. 10 & 2

Activity 7

1. Blue   3. Yellow
2. Red

Activity 8

1. J   2. H   3. B & D

Activity 9

A = 47
B = 45   E = 10
C = 30
D = 72

Activity 10

1. 43 Bananas
2. 20 Papayas
3. 23 Persimmons

Copyright Notice

Thank you

Thank you so much for purchasing and downloading this resource.

We hope it has been useful for you in the classroom and that your students enjoy the activities.

For more teaching and homeschooling resources like this, don't forget to come back and download the new material we add every week!

Thanks for supporting **Helping With Math**. We can provide teachers with low-cost, high-quality teaching and homeschooling resources because of our loyal subscribers and hope to serve you for many years to come.

- The Entire Helping With Math Team :)