

Name _____ # _____

Date _____

2nd Grade: Packets #17-21

Things to do EACH DAY:

- Read (or be read to) from a book or magazine of your choice for 20 minutes.
 - Work on the "All About Worms STEAM Unit" (this is a week-long project that should be divided up throughout the week. Please complete the best you can with the materials you have on hand *see special note in directions))
 - Complete Reading Language Arts WS.
 - Complete Math WS
 - Do from the PE and Music activities
-
- You may try to send me pictures of work and/or short video or audio response to work via Remind or LiveGrades as completed, if wish to try... 😊

Make sure to complete and return your packets as directed. If you have questions about the packet, you may contact me via the Remind app, LiveGrades, or phone the school 304-227-4114 during the hours of 10:00am-2:00pm M-F.

😊 Mrs. Kelly Teter

Day #17- Reading WS161, Math WS7 Day#20- Reading WS163, Math WS10

Day#18 Reading WS162, Math WS8 Day#21- Reading WS165, Math WS11

Day#19- Reading WSNewsela&Questions, Math WS9

All About Worms STEAM Unit- Distance Learning

Week of April 20-24, 2020 for 2nd and 3rd Grades

***** A SPECIAL NOTE*****

Families

Though I'd like you to try to complete as much of this learning project as you can, I am also aware that our households are limited with the materials/resources or internet capability that you have on hand. *Do not make special trips or purchases.* Any exploration of the topic you do as a family will be a wonderful learning opportunity for your child. Have fun together learning about worms!

This is a week (or more) long learning unit about worms. It will involve outdoor exploration, hands on activities and observations, technology exploration of a video read-aloud of the non-fiction story Wiggling Worms at Work, reading and listening comprehension, and the completion and illustration of a "worm book".

-You will need to construct your own Worm Jar, using the given instructions as a suggested guide. You will need a clear plastic or glass jar/container (canning jar, empty peanut butter, mayonaise or jelly jars, etc), dirt (outside dirt or potting soil), sand (or gritty small gravel, used wet coffee grounds, crushed eggshells, etc), oatmeal (dry instant oatmeal or similar), and a few live earthworms (you can hunt for them in your yard with family helpers or use the ones sold as fishing bait!) ... you'll also need a bit of water...

Put oatmeal in bottom of jar, layer the "dirt", then "sand", and repeat to make it look like a layer cake. Add worms on top. Make sure the soil is moist but not too wet.

- Make your first observation of your worm jar and draw a picture.
- Cover the outside of the jar with the provided black construction paper. You might need tape, glue or staples to keep the paper in a ring that can slide off when you want to look at your worms. (See the pictures in the guide.) Keep your worm jar in a protected area and keep them from getting too cold.
- Complete "How to Make a Worm Jar" Writing activity and illustrations. This can be worked on throughout the week. NOT at one sitting unless you want to.
- Using the attached transcript, you may wish to view a video read aloud of the nonfiction story Wiggling Worms at Work by Wendy Pfeffer. If you do not have internet access to the videos, use the attached transcript of the story to read with a helper. This story is also available in a variety of formats from paperback, Kindle/e-readers, and even free audio downloads. Listen/view/read this story to help you learn about worms.
- After 2-5 days, make a second observation of your worm jar and draw and write what you see. Any surprises? You are to *keep your worm jar at home, and can continue to raise your worms for as long as your family wishes*. Remember: You must feed your worms and keep the soil at the correct moisture. Also, as the bits of food decompose, it may give off a not so nice smell!
- Complete the Worm Book. Draw, color, and label pictures neatly and write in your best handwriting.

If you have any questions about the learning project, please message me on Remind or LiveGrades.

Attached is the transcript of the first linked video read aloud of the story Wiggly Worms at Work by Wendy Pfeffer.

Hi I'm Mrs. McDonald and I'm here to read another story to you. I'm going to be reading wiggly worms at work but first this is kind of part 2 of my how to make a worm jar. This is after one week what happened with my worm jar. So I'm going to take off the cover and show you. I can tell that there are little tunnels around here. I don't know how well you can see it but I don't see my worms. My worms must be hiding so we're just gonna have to wait until next week and see if they mix it up the rest of the way because I still see coffee grounds up here and I still see dirt here. A little mold grew and stuff. Eggshells are still up there so our worms haven't done all their job but it's supposed to take at least two weeks to finish it up. So I'm just gonna cover it back up and I'll put it in the house where it's warm because today it's cold. I live in Ohio. The weather changes like throughout the day if we can have hot and cold all in one day. Anyhow let's read Wiggling Worms at Work.

We don't lean worms at work. Look at that worm down in this little tunnel or burrow. Wiggling Worms at Work. Oh by Wendy Pfeffer illustrated by Steve Jenkins.

Down in the garden under your feet thousands of worms wiggle around flower bulbs and tunnel under trees. They twist and turn eating almost anything in their way. These wiggling worms are at work. Farmers plow their fields to loosen the soil. Crumbly soil lets the roots of plants spread out and grow. Worms also loosen the soil as they wiggle along. They are called nature's plows. As worms twist and turn they push aside loose soil. This creates tunnels. Air flows along these tunnels. Rainwater trickles down. Roots drink it up. Moist ground helps plants grow better. So these are good workers.

Worms tunnel in hard-packed soil by swallowing it. The soil goes in the worms mouth, slides into the crop, then passes down to the gizzard. Worms do not have teeth. Muscles, fine grains of sand, and small stones in the gizzard grind the soil. Worms digest leaf and plant bits that are found in the soil, just as you digest a salad. What's left passes through the worms body and comes out its tail end in the form of pellets called worm castings. These castings make good plant food. They help fruits and vegetables grow bigger and better.

Sometimes worms crawl above the ground. When they tunnel back down into the ground, they pull dead leaves and plants down with them. These plants make the soil better as they rot. Seeds come down, too. Some of these seeds send out roots. Seedlings sprout. Worms help new plants begin to grow. There's a little seedling.

Worms can wiggle twist turn and even tie themselves in knots because they have no backbones. Their soft bodies are made up of rings or segments. These segments act like the coils of a slinky toy. They let a worm bend. A worm has no legs but eight bristles under each segment act like a little like legs. They help the worm move. Strong muscles allow the worm to stretch out its front end. It becomes long and thin. Then the worm fastens its front bristles into the soil. The back end links up making the worm short and fat. Can you see that I've learned a lot about worms lately? The worms wiggle along stretching and slinking, stretching and slinking, with all its wiggling twisting and turning.

It's a wonder a worm knows where it's headed. It has no eyes, no nose, no ears, and hardly any brain at all, but a worm knows what's happening nearby. It feels vibrations on the ground and senses a hungry Robin. Quickly the worm slips back into its burrow. Hiding is the only way it can protect itself from

enemies. Worms also hide from the Sun. They must live in damp soil since they breathe air through their moist skin. In the hot Sun their skins dry up and they can't breathe. Worms eat at the entrance of their burrows. Then each worm covers any leftover plants with its castings. This pile of worm castings is called a midden. It hides the top of the worms burrow and acts like a door to keep out bad weather and rain. I've seen that before. Have you ever been walking along and seen a little like little tiny hills of dirt along the along the way? I've seen that. I didn't know that that's what it was classified. I didn't know that's what it was for.

In spring, before the weather warms, worms wiggle to the surface to mate worms are different from most other animals. Each worm is both male and female but each one still needs a mate. After mating each worm crawls back into its world. When the weather cools a ring-like cocoon forms near the head of each worm that has made it slowly the worm begins to move backward. The cocoon inches forward on the worms body just as a ring on your finger would move. The cocoon passes over openings in the worms body. Up to 30 eggs slip out of the openings and into the cocoon. In a few minutes the cocoon slips off the worms head just as the ring would slip off your finger. The ends of the cocoon close. inside the cocoon the eggs are fertilized. In about three weeks the eggs hatch.

Out of about thirty eggs only three or four wormlets emerge from each cocoon. They look like tiny pieces of cotton thread less than an inch long but they are fully developed worms and live completely on their own. They do not need their parents help. The wormlets inch along finding bits of dead plants too, ate dragging them into their tunnels, and covering any leftovers with their castings. They wiggle underground, loosen the soil and make tunnels. Even tiny wormlets help the soil. Oh here I hope you can see these pictures as I'm going along. These babies ^{grow} fast. In six weeks they are adult worms.

In winter, the soil near the surface freezes. The worms plug up their tunnels and move down to warmer soil. They stay there until spring, then they wiggle up tunneling, twisting, and turning until they are there, right under your feet again. Vegetables and flowers grow better, trees grow bigger, grass grows greener because there are thousands of wiggling worms at work.

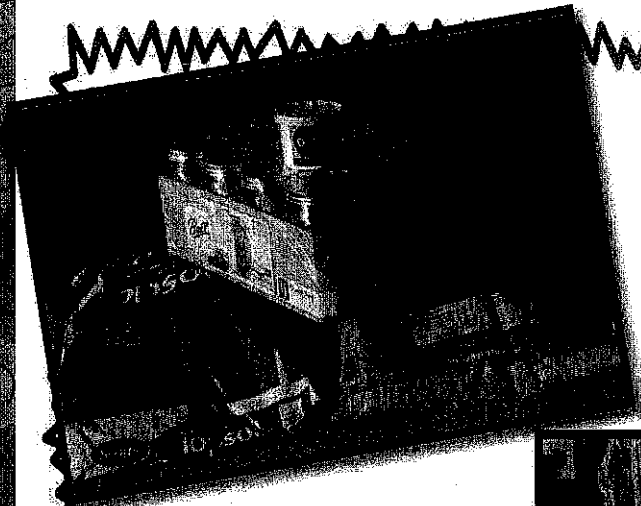
Then, this says find out more about worms, so I'm not going to read this whole thing, but it tells you some different things that you can do to find out about worms. So if you want to read all that you're going to have to go to the library or maybe online you could order this book Wiggling Worms at Work but I enjoyed it and I learned a little bit more about worms. I've been learning a lot about them and in another about week I'll open this up and see what it looks like. Talk to you later bye.

These are 2 different video read alouds of the story Wiggling Worms at Work:

<https://www.youtube.com/watch?v=e-iJU-CceIE> (*this is the one transcribed above and also shows an example of a worm jar)

<https://www.youtube.com/watch?v=AJOdHUb8JKA> (*this one has closer images of the pages of the book)

Build a Worm Habitat



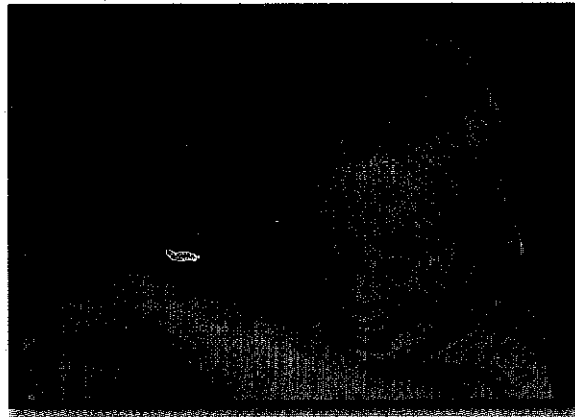
Materials: jar, sand, worms, dirt, black construction paper, oatmeal



Add a spoon full of oatmeal to the jar.



Add a layer of dirt and a small layer of sand.



- Layer with dirt and sand.
- Add worms
- Cover with black construction paper.

I usually put my students into groups of four. If the sand/dirt is dry you will need to mist with water. Make sure to have your students complete the first observation right away. The worms begin to tunnel quickly.

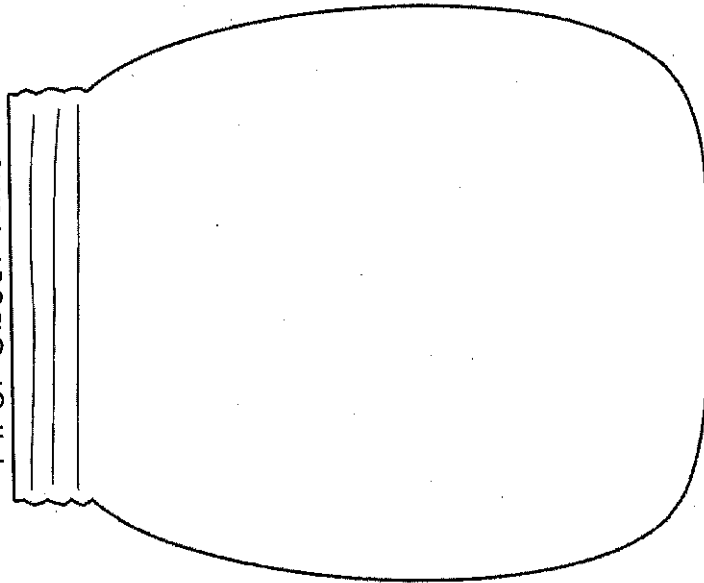
My students usually like to look at the worms each day, but I always have them complete the second observations after about 4 days. By this time the worms will have mixed up the sand and soil.

*Students should observe that worms help the earth by loosening soil, creating tunnels for rain water, and mixing soil and dirt to help plants grow.

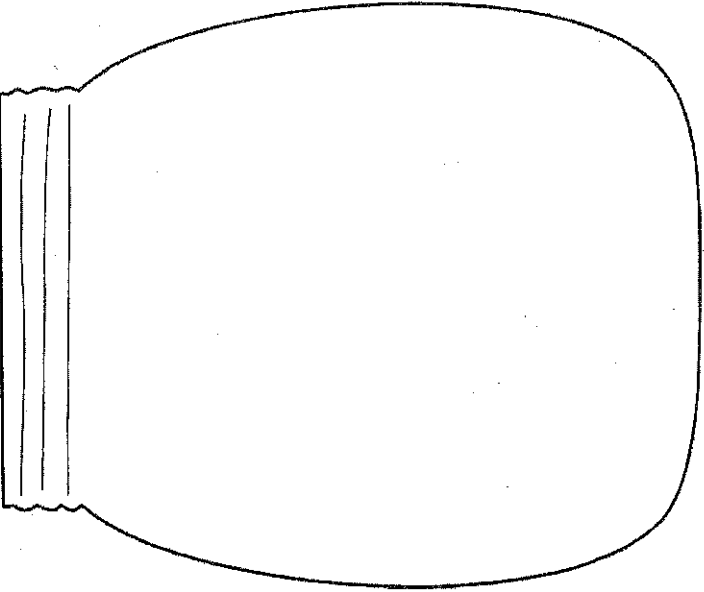
Worm Observations

Name _____

First Observation



Second Observation



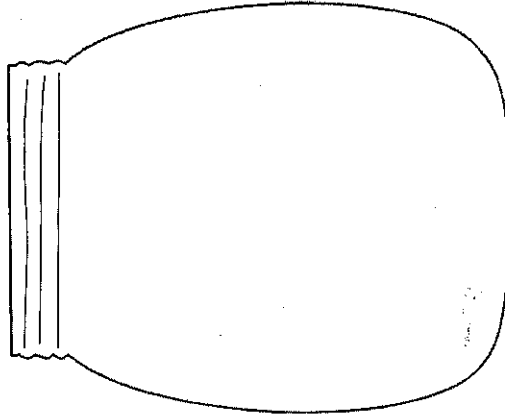
Four sets of horizontal lines for writing observations, each set corresponding to a drawing box above it.

How to Build a Worm Habitat

Name _____

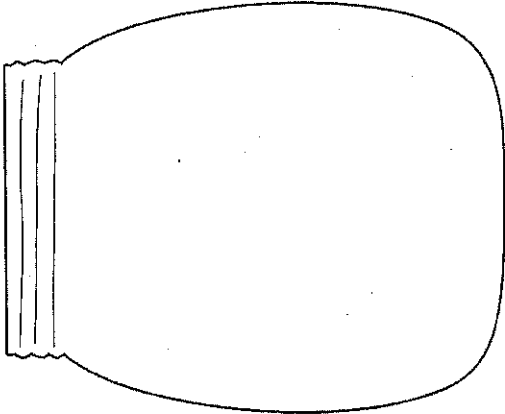
Materials: _____

First



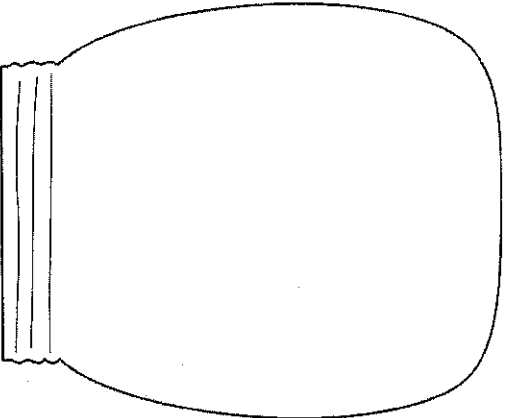
First, _____

Next



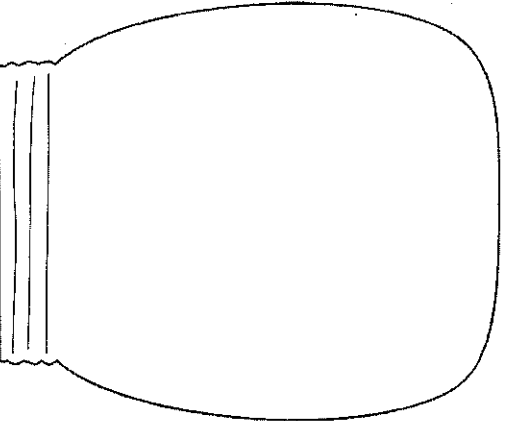
Next, _____

Then



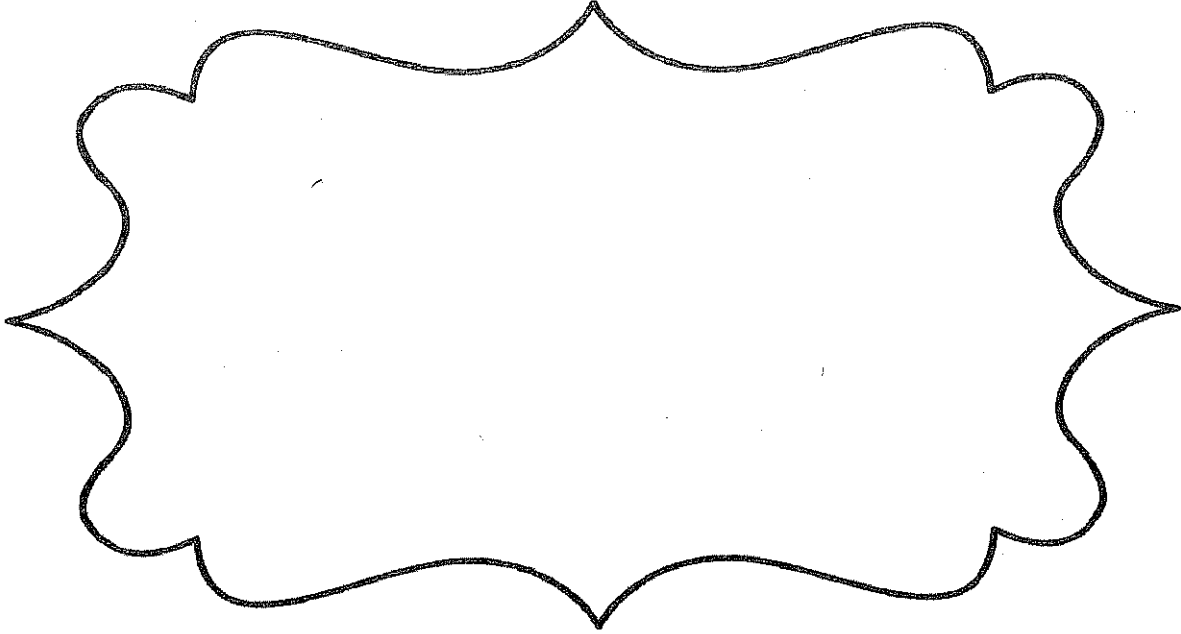
Then, _____

Last



Last, _____

All About Worms...



By _____

Draw and label a worm.

Worms eat...

Describe the function of each worm structure...

bristles

Blank writing area for describing the function of bristles, consisting of ten horizontal lines.

gizzard

Blank writing area for describing the function of gizzard, consisting of ten horizontal lines.

muscles

Blank writing area for describing the function of muscles, consisting of ten horizontal lines.

The COOLEST thing I learned about worms...

How do worms help the earth? Draw and describe.

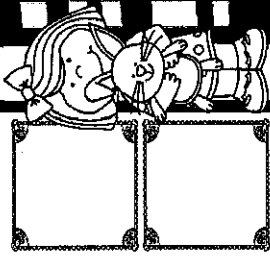
Name: _____

April Daily Math #7

Place Value ~ Make the smallest and largest number from the digits

DIGITS	LEAST NUMBER	GREATEST NUMBER
7,2,8		
6,7,0		
1,9,4		

Time



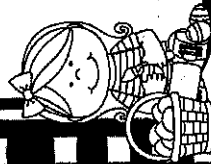
How many minutes are in an hour?

How many minutes are in 4 hours?

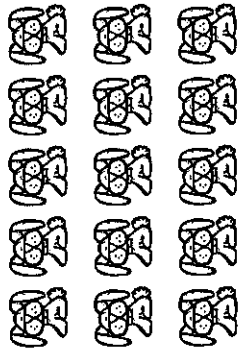
3 Digit Subtraction

Rewrite the subtraction problem.
Then subtract.

$$647 - 319$$



Draw the "turn-around" array.



$$3 \times 5$$

$$5 + 5 + 5$$

x

+ + + + +

Capacity

How many = a
Half-gallon?

_____ cups

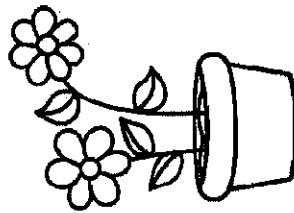
_____ pints

_____ quarts



Money

Use the fewest number of coins possible.



\$1.76

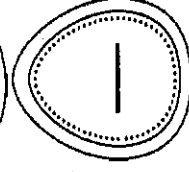
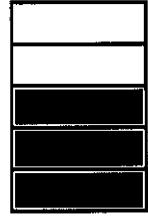
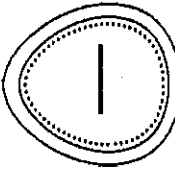
Word Problem

I have 21 eggs that I want to give equally to 7 of my friends. How many eggs will each friend get?

- (A) 4
- (B) 2
- (C) 3
- (D) 5

Fractions

Write the fraction that is not shaded.



Name: _____

April Daily Math #8

Arrays

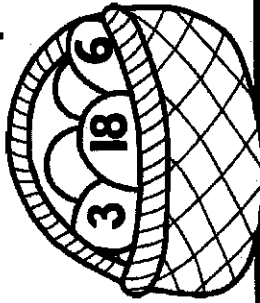
Draw an array to represent the problem.

3×7

4×8

Complete the fact family.

x	_____	=	_____
x	_____	=	_____
÷	_____	=	_____
÷	_____	=	_____






In and Out Boxes

RULE: $\times 2$

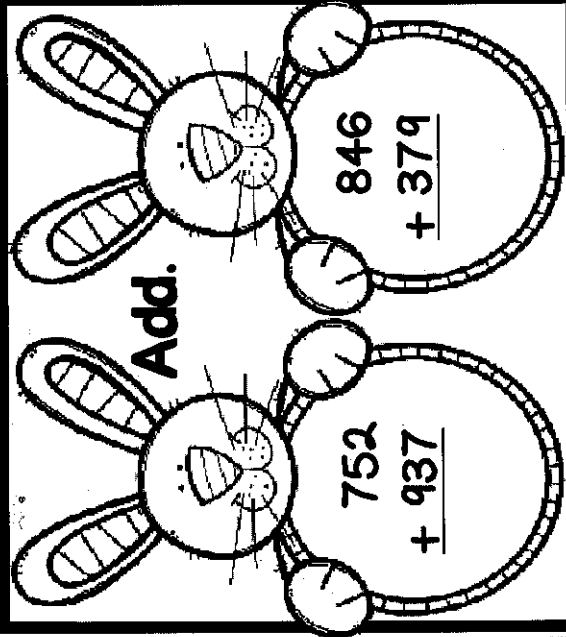
5	_____
7	_____
9	_____

Skip Counting ~ Finish the Pattern

Counting by...

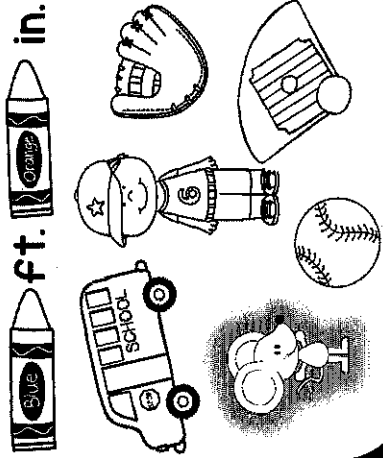
	478, _____, 488, _____, _____
	_____, 244, 248, _____, _____
	599, _____, 619, _____, _____

Add.



Feet or Inches?

Color the best measurement.



2 Step Word Problem

Kaylie had 75 crayons. Her friend gave her 49 more. How many crayons does she have now?

By the end of the week, she lost 17 of the crayons. How many does she have left?

Baseball

April Daily Math #9

Name: _____

Adding 1,000

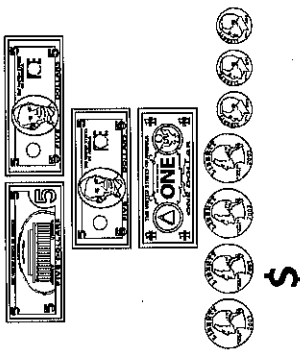
1. $2,465 + 1000 =$ _____
2. $3,941 + 1000 =$ _____
3. $8,074 + 1000 =$ _____

Double, then add 100

Number	Double	+ 100
30		
45		

Money

Circle: Odd or Even.



Sort it out. Write the problem under the number that it equals.

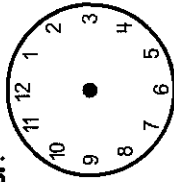
- 2×5 4×2 8×1
 10×1 2×4 5×2

Equals 8

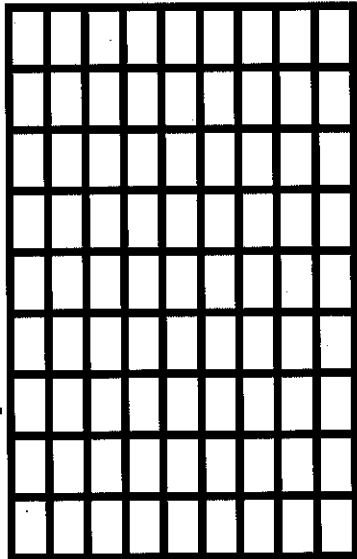
Equals 10

What time is it?

Draw the hands to show 2 hours later.

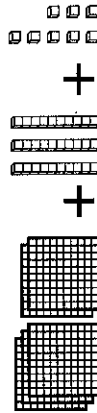


Color an array to represent the problem below.



9×4

Place Value

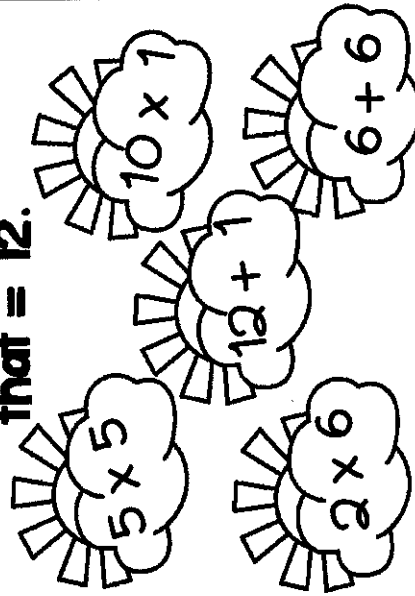


Expanded Form

+ _____ + _____ = _____

Write the number in words.

Color the problems that = 12.



April Daily Math # 10

Name: _____

Multiplication

Write the turn-around fact for each problem.

- $5 \times 2 = 10$ so, $\text{---} \times \text{---} = \text{---}$
- $6 \times 4 = 24$ so, $\text{---} \times \text{---} = \text{---}$
- $7 \times 5 = 35$ so, $\text{---} \times \text{---} = \text{---}$

Estimation

Complete the problem, then estimate each number to the nearest hundred.

$$\begin{array}{r} 708 \\ + 562 \\ \hline \end{array}$$

How Much Money?



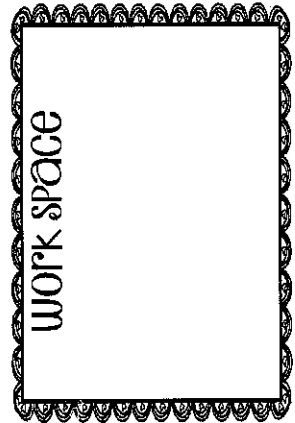
\$ _____

ARRAYS Fill in the missing problem for each row.

ADDITION PROBLEM	ARRAY	MULTIPLICATION PROBLEM
$4 + 4 + 4$		5×4
$6 + 6 + 6 + 6$		

Missing Addend

$$85 - \square = 59$$

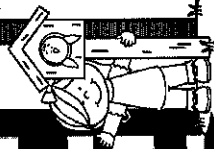
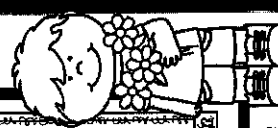
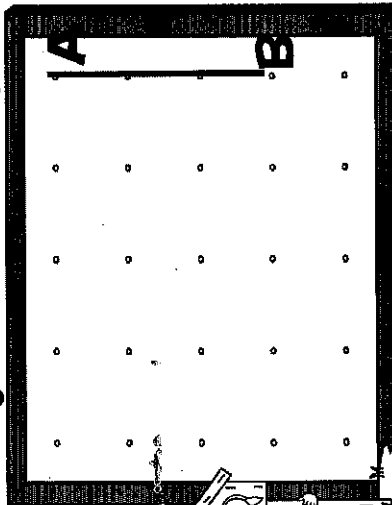


Add.

$$\begin{array}{r} 324 \\ 412 \\ + 850 \\ \hline \end{array}$$

$$\begin{array}{r} 614 \\ 569 \\ + 305 \\ \hline \end{array}$$

Draw a line segment parallel to line segment AB. Label its endpoints EG.



April Daily Math # 11

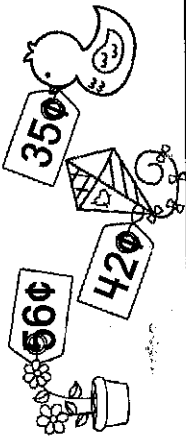
Measurement

Draw a line that is 6 cm long.

Draw a line that is 2 cm shorter.

Name: _____

I have \$2.55. How much money will I have left after buy the items below? Show your work.



Complete the table.

10 less	100 less	Number	100 more	10 more
		265		
		429		
		174		

Quantity, Quantity, Difference

Quantity: 42

Quantity: 19

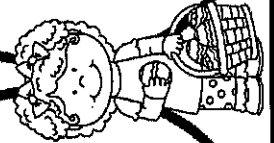
Difference: ?

Work Space

Add.

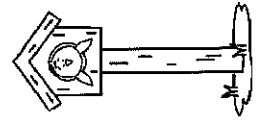
$$\begin{array}{r} 38 \\ 65 \\ 27 \\ + 26 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ 46 \\ 65 \\ + 94 \\ \hline \end{array}$$



What number is 100 more than $700 + 40 + 8$?

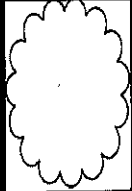
- (A) 748
- (B) 848
- (C) 784
- (D) 884



Magic Square

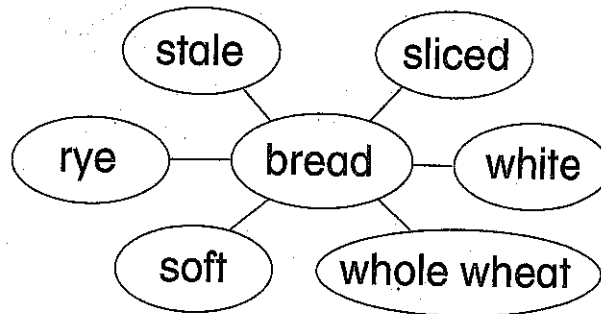
Add down and then add across. The number in the bubble should equal both ways.

7	11	
11	13	



Adjectives

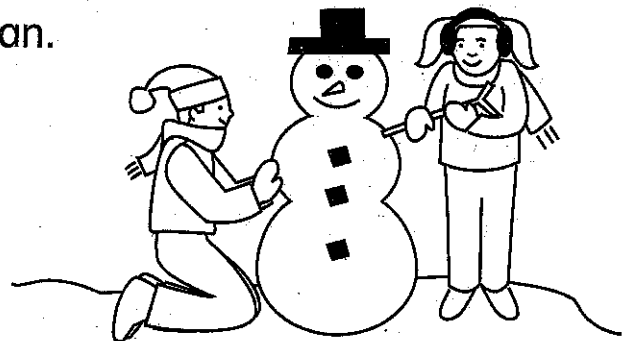
- An **adjective** is a word that describes a noun.
- Some adjectives tell what kind.



Read the sentences. Choose a word in the box to complete each sentence. Write the word on the line.

red white big steep fat

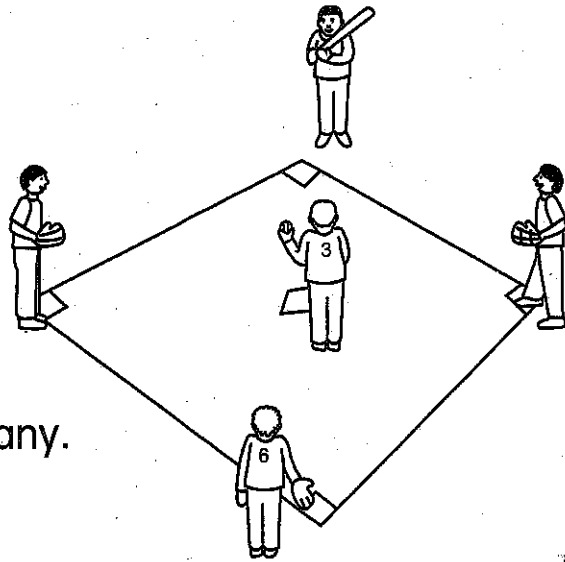
1. We had a _____ snowfall.
2. The snow was soft and _____.
3. We ran down a _____ hill.
4. We made a _____ snowman.
5. We gave it a _____ scarf.



Name _____ Date _____

Using Adjectives

- An **adjective** is a word that describes a noun.
- Some adjectives tell how many.



Write each sentence.

Circle the adjective that tells how many.

1. We scored five runs:

2. I had two strikes.

3. There were several balls.

4. I took one swing.

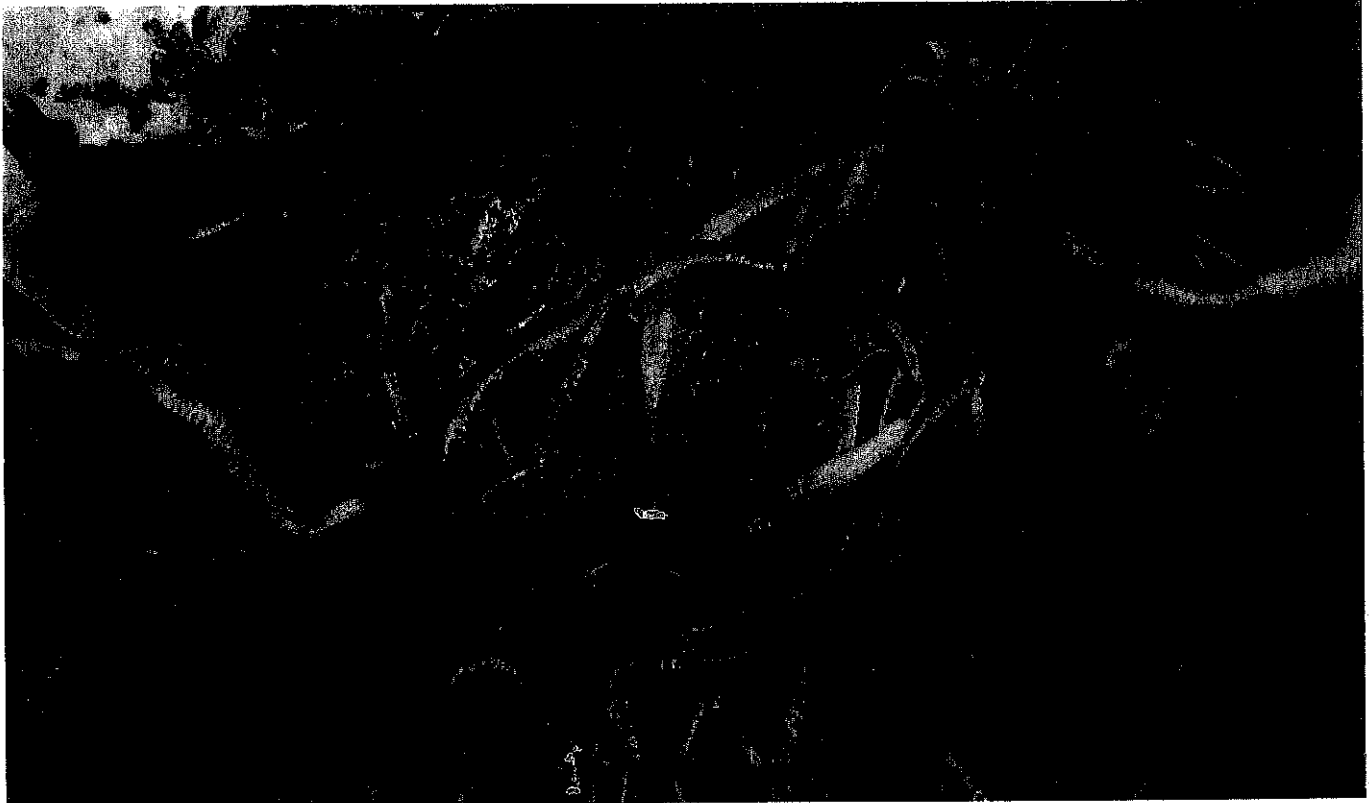
5. Many people cheered.

Plants and animals benefit greatly from the actions of earthworms

By HowStuffWorks, adapted by Newsela staff on 05.09.19

Word Count **258**

Level **410L**



Earthworms wriggle in the dirt, breaking up soil. They are trash collectors and farmers, allowing plants to grow. Photo by: Creative Commons

Earthworms help local plants and animals. They break down dead leaves. They also help break down other natural waste.

Worms are eating machines. They break the waste down into smaller parts. Worms take nutrients from the waste. They also give some of those nutrients to the soil. Worms poop out castings. These castings are packed with nitrogen. This is an important substance. Plants need nitrogen to grow.

Earthworms help in other ways, too. Have you ever watched rain soak into the ground? You can thank worms. They give the rain a place to go. Worms make holes underground. These are called burrows.

Sliding Through The Dirt

Then they make a slimy mucus. The mucus helps worms slide through the dirt. It coats the sides of the burrows. This makes the dirt stick together. It keeps the burrows from caving in.

Worms help stop flooding, too. Rain seeps through the burrows into the ground. The burrows also clean the water.

Earthworms till the soil, too. This means they make tunnels deep underground. Then they move the soil up and down. They break up the soil and let the air in.

Helping Plant Roots To Grow

The air makes the soil looser. This lets plant roots grow more easily. Earthworms break up minerals in the soil. These minerals help plants grow. Plants need rich soil to make food. Earthworms are natural earth movers.

Earthworms act like the Earth's belly. They help take out waste. They also help give the Earth nutrients. These nutrients help animals and plants grow.

Quiz

- 1 What is an important substance in worm castings?
 - (A) soil
 - (B) mucus
 - (C) oxygen
 - (D) nitrogen

- 2 HOW do earthworms stop flooding?
 - (A) They poop out different nutrients into the soil.
 - (B) They leave slimy mucus as they slide through the dirt.
 - (C) They build underground holes where the water can seep in.
 - (D) They break down waste into very small pieces.

- 3 How does the way earthworms move through the ground help plants?
 - (A) They break down the dead leaves.
 - (B) They break down waste and take nutrients.
 - (C) They make the soil looser for plant roots to grow.
 - (D) They make mucus that causes the the dirt to stick together.

- 4 Which sentence from the section "Sliding Through The Dirt" explains WHY earthworms' burrows are helpful?
 - (A) Then they make a slimy mucus.
 - (B) It coats the sides of the burrows.
 - (C) It keeps the burrows from caving in.
 - (D) The burrows also clean the water.

- 5 What does it mean when earthworms till the soil?
 - (A) It means that they make a slimy mucus.
 - (B) It means that they act like the Earth's belly.
 - (C) It means they make tunnels deep underground.
 - (D) It means that they help break down natural waste into smaller parts.

- 6 WHY do plants need earthworms' castings?
 - (A) because mucus in the castings gives plants water
 - (B) because castings help plants to collect rain
 - (C) because castings take away the dead leaves
 - (D) because nitrogen in the castings help plants to grow

- 7 How do earthworms help stop flooding?
 - (A) They poop out castings packed with nitrogen that push water away.
 - (B) They break down dead leaves that block water from flooding their burrows.
 - (C) They coat the tunnels they make with mucus and the rain seeps through them into the ground.
 - (D) They move the soil up and down, spreading minerals underground in the soil.

8

What happens because earthworms till the dirt?

- (A) Plant roots are able to grow easily.
- (B) Plant waste gets eaten very quickly.
- (C) Plants have trouble getting nutrients.
- (D) Plants do not get enough water.

Using More Adjectives

- An **adjective** is a word that describes a noun.
- Some adjectives tell what kind.
- Some adjectives tell how many.

Use words from the box to complete each sentence.
Write the word on the line.

one	ten	two	many	some
pretty	big	strong	little	sweet

1. I have _____ nose.
2. Candy is _____.
3. We have _____ toes.
4. Someone _____ will carry the heavy bag.
5. I picked some _____ pink flowers.
6. My feet are too _____ for these boots.
7. The baby is very _____.
8. Would you like _____ cookies?

Adjectives

- An **adjective** is a word that describes a noun.
- Some adjectives tell what kind.
- Some adjectives tell how many.

A. Circle the adjective in each sentence.

1. Jill took a long walk.
2. She passed an old house.
3. She saw a new mall.
4. She saw a cute baby.

B. Find the adjective in each sentence. Write it on the line.

5. Let's go to a faraway place. _____
6. We can see little bugs. _____
7. We can hear strange music. _____
8. We can feel soft winds. _____