3rd Grade Learning Activities
April

Dear Students, Parents, and Families:

As our break extends, your teacher is providing this packet of resources to continue your child's learning. We recommend that your elementary child spends 1-2 hours daily on engaged learning activities, in addition to free time to play, explore, and spend time with family.

Please plan times for the following activities for your child. ***NOTE: If your child becomes frustrated or overwhelmed with any of these activities, please contact your child's teacher for assistance.***

READING:

- Read for 30 minutes. This could be broken up into two 15-minute chunks.
- Then respond to one reading prompt by discussing it with someone or by writing about it in your notebook. If you have some extra time in your day, check out the Other Ideas sections. :) Have fun!

LITERACY:

- **Research book on nonfiction topic of choice**
- Other Writing Activities are optional.
- Practice word wall words for 5 minutes per day. Choose 4 to practice each week.
- There are also 2 phonics activities for you to complete this month.

MATH:

- Do 30 minutes of math per day. Plan to check off all of the required items by May 3. Choose other activities from the optional math activities as your child has time.

SCIENCE:

- Watch the 4 mystery science videos in order (check the calendar).
- You can watch the bonus science video on hand sanitizer any time.

OTHER: (LMC/Tech, PE, Art & Music)

- Choose activities from the Enrichment Activities pages for your child to explore.

Each day, check off the items on the calendar as they are completed. Initial each day when your student has completed the work. Students should bring the calendar and notebook back to school to share with their teacher when school is back in session.

If you have any questions, do not hesitate to reach out to your child's teachers through email.

For your convenience, all of the information included in this packet is also available on the website under the "Families" tab.

Your continued partnership is always appreciated!

Daily Log

Student Name:_____ Grade_____ Teacher_____
Each day, please check off the items on the daily log as they are completed. Also, initial daily when your child has completed the work.

April 6 **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: research/ note-taking ❑ MAPL Activity	**April 7** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: research/ note-taking ❑ MAPL Activity	**April 8** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: research/ note-taking ❑ MAPL Activity	**April 9** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Watch Mystery Science 1 ❑ MAPL Activity	**April 10** **NO SCHOOL Enjoy your time with your family**
April 13 **NO SCHOOL Enjoy your time with your family**	**April 14** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: rough draft ❑ MAPL Activity	**April 15** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: rough draft ❑ MAPL Activity	**April 16** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: rough draft ❑ MAPL Activity	**April 17** **Adult Initials _____** ❑ Read 30 min. ❑ Watch Mystery Science 2 ❑ MAPL Activity
April 20 **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Phonics act. 1 ❑ MAPL Activity	**April 21** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: rough draft ❑ MAPL Activity	**April 22** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: rough draft ❑ MAPL Activity	**April 23** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: rough draft ❑ MAPL Activity	**April 24** **Adult Initials _____** ❑ Read 30 min. ❑ Watch Mystery Science 3 ❑ MAPL Activity
April 27 **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Phonics act. 2 ❑ MAPL Activity	**April 28** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: revising and editing ❑ MAPL Activity	**April 29** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: revising and editing ❑ MAPL Activity	**April 30** **Adult Initials _____** ❑ 30 min. Reading ❑ 30 min. Math ❑ Writing: revising and editing ❑ MAPL Activity	**May 1** **Adult Initials _____** ❑ Read 30 min. ❑ Watch Mystery Science 4 ❑ MAPL Activity

READING

Please read for at least 30 minutes each day and take 5 minutes to respond to what you read. You may choose to read a book that you have with you or use an online book using a resource below. Respond to one prompt below by discussing it with someone or by writing about it in your notebook. Please remember to check off your reading in the calendar.

Fiction Response Prompts

- What is the theme of your book? Explain why you chose that theme.
- Was there a problem in this book? What was it? How was it solved?
- How would you describe the main character?
- What was your favorite part of the book? Why?
- Did you learn anything from the book?
- What was the MOST important event in the story? Why?
- Was there a character you didn't like? Why?
- Would you recommend this book to someone else? If so, who?
- Which character is most similar to you?
- If you could change the title, what would you change it to?
- What was the author's purpose in writing this book?
- What does the character want? Do you think he/she will get it? If so, how?
- If you could ask the author a question about the text, what would you ask?
- What questions do you have about the text?
- How are you feeling as you read?
- What do you think is going to happen next? How do you know?

OTHER (OPTIONAL) IDEAS:

- Choose your favorite chapter and make a comic strip.
- Make a book cover! If your book had a sequel, what would it look like?
- Talk show! Interview one of the characters. List your questions along with their answers.

Nonfiction Response Prompts

- Tell or write about your favorite part of the text.
- Tell or write the main topic of the text.
- Tell or write one detail the author shared about the main topic.
- Tell or write two details the author shared about the main topic.
- Tell or write something you learned.
- How do you know this text is nonfiction?
- Tell or write about a text to self connection.
- Tell or write about a text to text connection.
- What do you still wonder about this topic?
- Why did the author choose this title?

OTHER (OPTIONAL) IDEAS:

- Make a video book talk.
- SUMMARIZE - make a mini book version.
- Create some new text features to go along with your book.

Online Book Resources

- Scholastic Learn at Home--www.scholastic.com/learnathome Daily learning activities on one topic include several books to read, a related video, and a writing activity.
- Book Flix--http://teacher.scholastic.com/products/bookflix/#/ (click login in top right) Fiction and nonfiction books that can be read or read aloud.
- True Flix--https://sdm-tfx.digital.scholastic.com/?authCtx=U.600107734 Nonfiction books on a large variety of topics to be read or read aloud.
- Epic! --https://www.getepic.com/students
  - Teacher will provide a class code

LITERACY

Word Work

___ Phonics activity 1: Review the Rules Poster for spelling when adding suffixes to words. Practice by doing Phonics Worksheet 1.
___ Phonics activity 2: Practice spelling when adding suffixes to words by doing Phonics Worksheets 2 and 3.

Practice the high-frequency spelling words for this month. Please choose 3-4 per week for your child to practice until they have them committed to memory. Here are a few ideas for practicing:

- Say each letter while marching in place or doing jumping jacks.
- Form the word with letter cards or magnets. Remove one letter at a time, spelling the word each time, until there are no letters left and you are spelling from memory.
- Say the letters in chunks to practice saying them (wr … ite)

knew, study, second, near, today, sure, took, four, head, country, father, picture, earth, year, mother, enough, above, live

___ I can spell these high-frequency words correctly from memory.

Writing Activity - Nonfiction Book

Week of April 6:
___ Research nonfiction topic of your choice (animal, person, place, etc.) Use a book, online resources (check out PebbleGo and World Book for Kids etc. on the LMC resource page) or a combination of both.
___ Take notes using an outline. An outline is attached. Remember to read, close your book, and then take notes.
___ Number the topics on your outline in an order that makes sense for your book.
Weeks of April 14-24:
___ Write a rough draft remembering to skip lines and circle misspelled words. *No plagiarizing, please! Don't forget to include an introduction (with a hook), transition words (first, second, lastly, for example, one example, in addition, in fact, as a matter of fact, as you can see, in conclusion, etc) and a nice conclusion.
Week of April 27:
___ Revise your paper using a pen. Make your writing better by elaborating (adding more details) and deleting unnecessary information. Bold words that you would like to define in your glossary.
___ Edit your paper. Be sure to check for capitalization, punctuation, and correct your spellings.
First 2 weeks in May:
___ Write the final draft of your book in your neatest handwriting.

Your book should include the following:
___ Book cover with the title, author's name, and a beautiful picture.
___ Table of Contents listing all of the chapters you have written.
___ 3-5 organized chapters on various topics about your subject.
___ At least one text feature per topic (picture, caption, diagram, labels, map, comparisons, lists, etc).
___ Glossary of bolded words with their definitions (5-10 words)
___ Optional: title page (placed after your cover) and an index (placed after the glossary). HAVE FUN! :)

Optional Writing Activities

Have fun choosing from these writing activities. These are feel-good activities, if you have time. :)
___ Write a thank you card or letter. Think about someone older (a grandparent, great-grandparent, neighbor) who is not getting out and about as much as they would like. Brighten their day and ask them to write you back!
___ Write up a daily schedule for yourself. It's nice to stick (somewhat) to a routine.
___ Write about a time that someone did something kind for you. What did they do and how did it make you feel?
___ Describe a special day that you shared with a friend or your family. What made it so memorable?
___ If you have a pet, describe a day from their point of view.
___ What are you thankful for? Make a list of 8-10 people or things and explain WHY you are thankful for them.

Research Outline

Subject: _____

Topic _____

Supporting Details:

1. _____
2. _____
3. _____
4. _____
5. _____

Topic _____

Supporting Details:

1. _____
2. _____
3. _____
4. _____
5. _____

Topic _____

Supporting Details:

1. _____
2. _____
3. _____
4. _____
5. _____

Research Outline

Subject: _____

Topic _____

Supporting Details:

1. _____
2. _____
3. _____
4. _____
5. _____

Topic _____

Supporting Details:

1. _____
2. _____
3. _____
4. _____
5. _____

Topic _____

Supporting Details:

1. _____
2. _____
3. _____
4. _____
5. _____

MATH

- Complete these required math activities in the order they are listed.
- Work for 30 minutes and then put it aside for the day. We expect that the workbook lessons (included in this packet) will each take two days to complete.
- If you still have time during your 30 minutes of daily math, choose skills to review from the choices in the bottom box.

Required Math Activities--Complete all

Math Expressions Unit 5 Measurement and Fractions
Watch the introduction videos then complete the lessons in the order listed.
Flocabulary is offering a free 60 day trial - Please sign up and enjoy these instructional videos and many more!

Area and Perimeter:
_____https://www.flocabulary.com/unit/area-and-perimeter/.
_____https://bit.ly/2vVNRpP
_____https://bit.ly/2yheC95
_____https://bit.ly/3as3qon
_____ Lesson 5.1 (Workbook Pages 309-312)
_____Lesson 5.2 (Workbook Pages 313-316)
_____Lesson 5.4 (Workbook Pages 319-322)
_____ Lesson 5.5 (Workbook Pages 323-326)
_____ Lesson 5.6 (Optional)

Equivalent Fractions:
_____https://www.flocabulary.com/unit/fractions/
_____https://www.flocabulary.com/unit/equivalent-fractions/
_____https://www.flocabulary.com/unit/mixed-numbers-improper-fractions/
_____ Lesson 5.7 (Workbook Pages 335-336)
_____ Lesson 5.8 (Workbook Pages 337-338)
_____ Lesson 5.9 (Workbook Pages 339-340)
_____ Lesson 5.10 (Optional)

Optional Math Activities

Online Learning: Khan Academy (access through Google Classroom)
Math Games:
Prodigy https://www.prodigygame.com
Math Playground https://www.mathplayground.com/
Abcya https://www.abcya.com/
(Does not work on ipads, phones, or tablets. Works on desktops and laptops.)

- **Fraction Games**
  - **Equivalent Fraction Bingo**
  - **Feed Me Fractions**
  - **Pecking Order**
  - **Fraction Fling**
  - **Equal Ratio Asteroids**

Area and Perimeter / Fraction Videos
https://www.youtube.com/watch?v=gNqmI0f16QI
https://www.youtube.com/watch?v=8cz_IB65pZM
https://www.youtube.com/watch?v=MTSlKifo4js
https://www.flocabulary.com/unit/adding-fractions/

ENRICHMENT ACTIVITIES

Complete the 4 Mystery Science Lessons on weather and climate in order this month. Choose to explore other activities as you have time.

Science Activities

___ If you would like to show your child the effectiveness of soap in removing germs, try this experiment with water, pepper, and soap.

Take some pepper and sprinkle it in a dish with plain water. Get a second dish and fill it with soap and water. Now, dip your finger into the dish with pepper water. Look at your finger. It may have a few specks of pepper on it. Dip your finger in the dish with soap water, making sure it is fully submerged. Now dip your soap-covered finger back into the dish of pepper water. You should see the pepper immediately move away from your finger. This shows how soap works to repel germs so that they can be washed away.

___ Mystery Science Bonus Video: How does hand sanitizer kill germs? (Do this any time.)
https://mysteryscience.com/mini-lessons/germs-sanitizer?code=38666f196fe2ec5808e297aaa2551cb7

The links below will take you right to the science lessons. Check them off once you've watched each one. Don't worry about doing the activities at home, unless you have the supplies to do so and you want to!

Mystery Science learning videos: April's unit is stormy skies (weather and climate).

___Lesson 1: Water cycle and phases of matter: Where do clouds come from?
https://mysteryscience.com/weather/mystery-1/water-cycle-phases-of-matter/46?code=NDExNDY1NDM&t=student

___Lesson 2: Local Weather Patterns & Weather Prediction: How can we predict when it's going to storm?
https://mysteryscience.com/weather/mystery-2/local-weather-patterns-weather-prediction/47?code=NDExNDY1NDM&t=student

___Lesson 3: Climate, Geography, & Global Weather Patterns: Why are some places always hot?
https://mysteryscience.com/weather/mystery-3/climate-geography-global-weather-patterns/98?code=NDExNDY1NDM&t=student

___Lesson 4: Natural Hazards & Engineering: How can you keep a house from blowing away in a windstorm?
https://mysteryscience.com/weather/mystery-4/natural-hazards-engineering/153?code=NDExNDY1NDM&t=student

LMC/Tech Activities from Mrs. Hundt & Mrs. Mead

___**Advertising/Media Literacy** - Be an advertising sleuth and tally the number of ads you see in one day. Click on the link for more Advertising information. https://www.pbslearningmedia.org/tools/storyboard/view/b591504a-c214-41a4-8ead-266de8e9e8bf/

___**Famous People** - Interview a family member. Ask them if they have a hero and ask them to tell you about that hero. Click on the link for more resources. https://www.pbslearningmedia.org/tools/storyboard/view/8b4efb24-1d37-48dc-8c86-a03843104949/

___**LMC Resources** – Pick out a LMC resource and show a family member how to use it.
https://www.pbslearningmedia.org/tools/storyboard/view/142f24cb-af00-48a6-9617-eb5d299899c8/

Be an explorer! Draw a path and the sites a bug would see if it traveled around your house. If you have access to the internet, click on this link for more ideas: https://wisconsin.pbslearningmedia.org/tools/storyboard/view/3fb5deae-bac3-401d-9e45-50b61a6484c8

Be a computer programmer! Design an obstacle course inside or outside your home and create a program for someone to follow from start to finish with LEFT, RIGHT, UP, DOWN, and any other directions necessary. If you have access to the internet, click on this link for more ideas:
https://wisconsin.pbslearningmedia.org/tools/storyboard/view/46ba3621-1e82-43b6-8fe3-980c91adeaa2

Check out "Mrs. Mead's Technology Links" for some of your favorite websites.

Enrichment Activities

Music Activities from Mrs. Jones & Mrs. Martin

*Watch this greeting from Mrs. Jones and Mrs. Martin: https://youtu.be/bgH8k6AUuhU
*Watch this short video about woodwind instruments: https://www.youtube.com/watch?v=Cwfj9Xx2LF4
*Explore Rhythm or Songmaker on: https://musiclab.chromeexperiments.com/Experiments
*Sing along with a karaoke YouTube video
*Make up your own words to a song (create a song parody)
* Dance along to your favorite song!

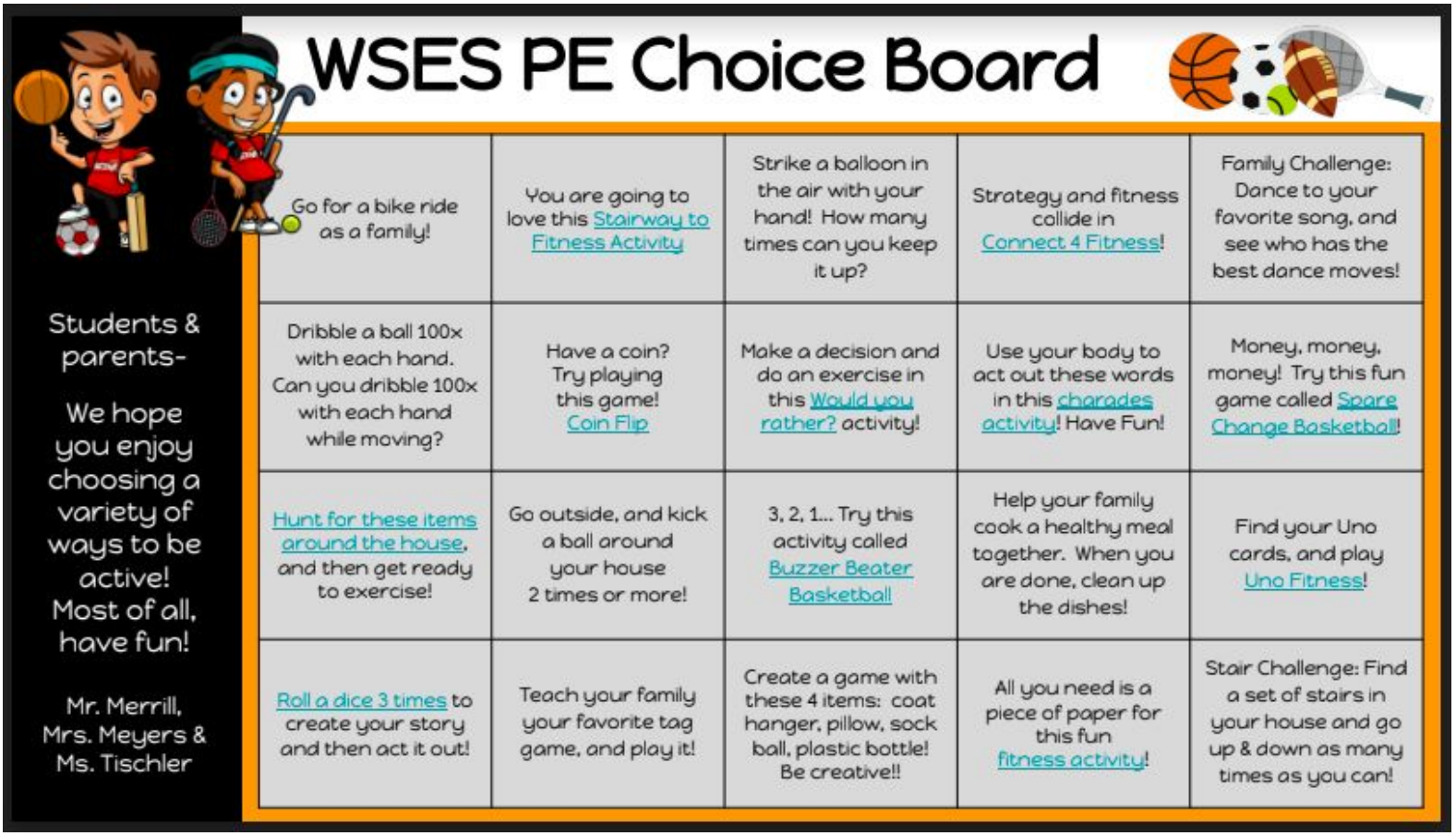
Art Ideas from Ms. Lotspaih & Mrs. Finch

*Watch a greeting from Ms. Lotspaih and Mrs.Finch! https://youtu.be/g8JNW1m0VxA
*Watch this video about artist Paul Klee. https://youtu.be/eqHJ9gDLkL8
*After you have watched the video on Paul Klee, make a collage of a dream or story from imagination.
*Create a drawing of your bedroom, a favorite toy, your home, or your backyard. Use your OBSERVATION skills to LOOK at what you're drawing as you are drawing it. Tip: only draw what you see!
*While eating a snack, arrange your food in a pattern before eating it up! (ex: trail mix- peanut, raisin, m&m, peanut, raisin, m&m)
*Do a random act of kindness by making a card for someone you miss. With the help of an adult send it to them in the mail.

Physical Education with Mrs. Meyers, Mr. Merrill & Ms. Tischler

*During this extended learning time, it's more important than ever for students to be active. Click on the link for our **PE CHOICE BOARD**, which offers a variety of ways to be active! We hope you have fun!!
https://drive.google.com/file/d/1x41_M8S9vlOxD8K1HSBm1-zQyxG4Jw-x/view?usp=sharing

***SHARE WITH US**!! We would love to hear from you about the ways you are staying active at home! Click on this link to fill out a short form! https://forms.gle/7iEBr1LucRWByPFM9



URL Links For Above Activities:

CHOICE BOARD: https://drive.google.com/file/d/1x41_M8S9vlOxD8K1HSBm1-zQyxG4Jw-x/view?usp=sharing

Stairway to Fitness Activity: https://www.youtube.com/watch?v=LvmZTCXq2Ts&feature=youtu.be

Connect 4 Fitness: https://docs.google.com/document/d/1NN4ZjRb9FmxGp7B7roKiMSrOlFd781RHTycO617rMCc/edit

Coin Flip: https://docs.google.com/document/d/1RS6B6wK0cL2PtVBkaYjF6NJ7KkkzMA2H9MjRn3fiT1I/edit

Would You Rather: https://www.youtube.com/watch?v=jAuhWjMRCpg&feature=youtu.be

Charades Activity: https://drive.google.com/file/d/1StOtrQsBZ7YHCLuWI2YC4KYAVO8Bk81b/view

Spare Change Basketball: https://drive.google.com/file/d/1v_NsbH_MBYIgPQR6LR74CZDvSEZu10iB/view

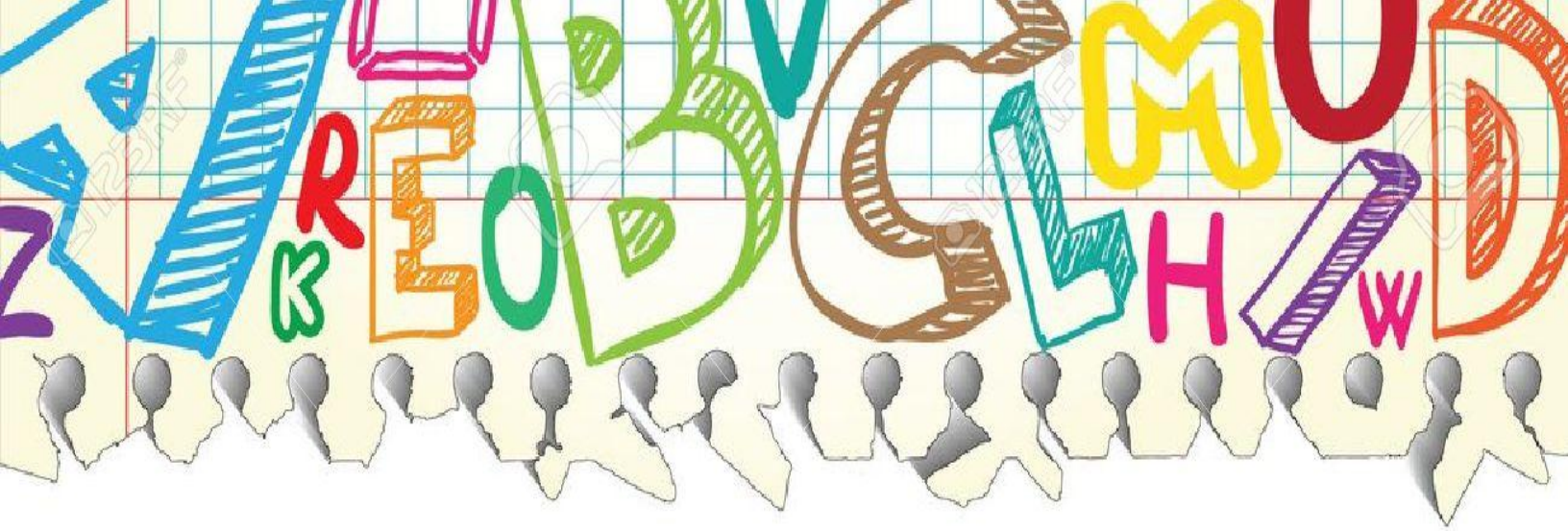
Hunt Around the House: https://drive.google.com/file/d/1KgAIOQV2CwQ9_uYCROIQOSzZJyB9GoD_/view

Buzzer Beater Basketball: https://drive.google.com/file/d/1_CyJ3V5HQgSqvZGndI-Lu6FxoyC4bEAz/view

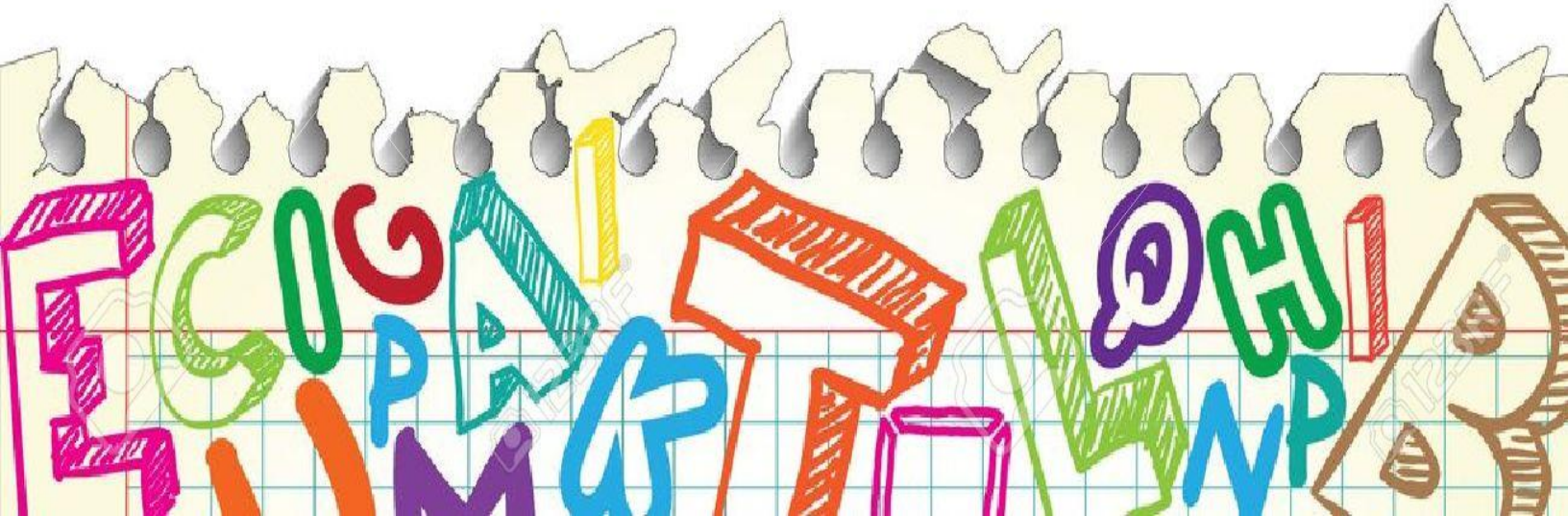
Uno Fitness: https://www.youtube.com/watch?v=Hzy9lOrlnpQ&feature=youtu.be

Roll a Dice 3 Times: https://drive.google.com/file/d/1AEC-mz6ZRXZCOWOgeB-6SF9Nd9GB_3-u/view

Fitness Paper Activity: https://www.youtube.com/watch?v=v3kTUdWM7U4&feature=youtu.be



Word Work Activities



Rules Poster

After studying the Doubling Rule, the Silent E Rule, and the Change the Y Rule, students may enjoy making rules posters for their home study areas as an excellent way to reinforce these rules. Color the posters and mount them on colored paper.

1-1-1 Words

The final consonant if the suffix begins with a **Vowel**
Example: sad, sadder, sadness
(do not double if the suffix begins with a consonant)

Recipe for Reading pgs. 183-184

Silent E Words

The final e if the suffix begins with a **Vowel**
Example: name, naming, nameless
(keep the e if the suffix begins with a consonant)

Recipe for Reading pgs. 214-216

Words Ending in Y

The y to i if there is a **Consonant** before the y
Example: cry + ed = cried
Exception:
y + ing love each other and are never separated
Example: cry + ing = crying
(keep the y if a vowel comes before the y)
Example: play + ed = played

Recipe for Reading pg. 217

(Rudinsky & Haskell, 1985:p.86)

Name: _____ Date: _____

Phonics Worksheet 1
28

Three Great Rules

		1-1-1 Doubling	Drop the e	Change y to i	Do Nothing	
trim	+ er					_____
happen	+ ing					_____
envy	+ ed					_____
suppose	+ ing					_____
paint	+ er					_____
order	+ ing					_____
spot	+ ed					_____
brave	+ est					_____

NWH 10/14

Name: _____ Date: _____ Phonics Worksheet 2

29

Three Great Rules

	1-1-1 Doubling	Drop the e	Change y to i	Do Nothing	
bit + en					_____
bark + ing					_____
chase + ing					_____
need + y					_____
hope + ful					_____
easy + er					_____

NWH 10/14

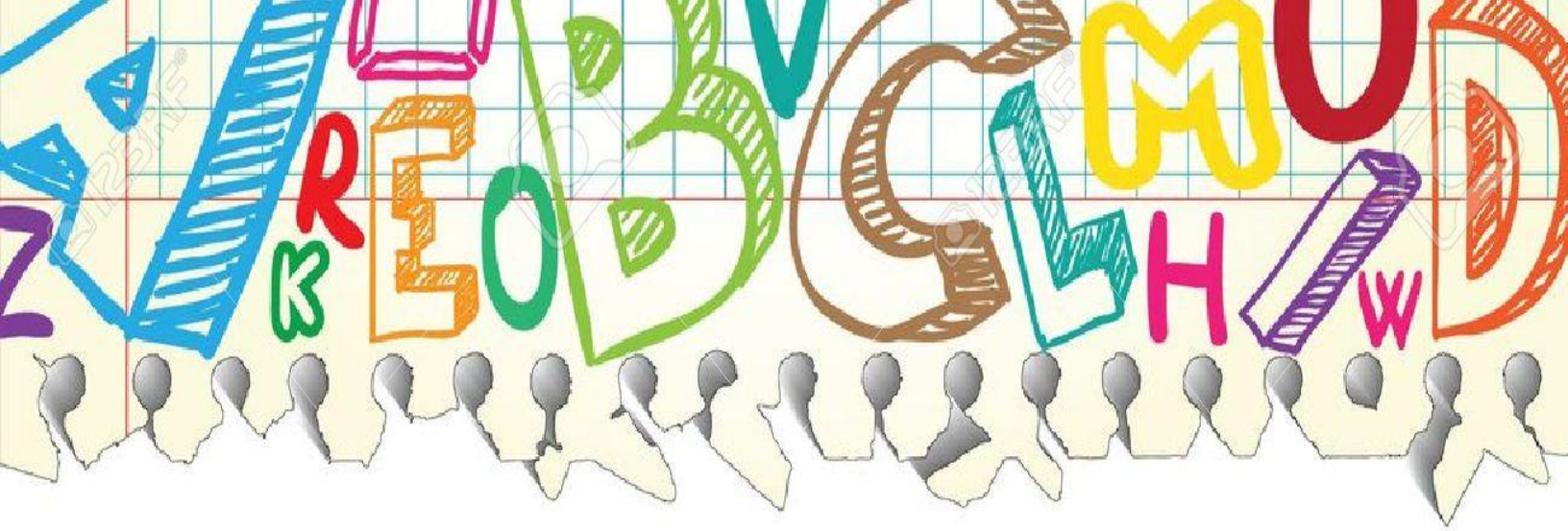
Name: _____ Date: _____

Phonics Worksheet 3
30

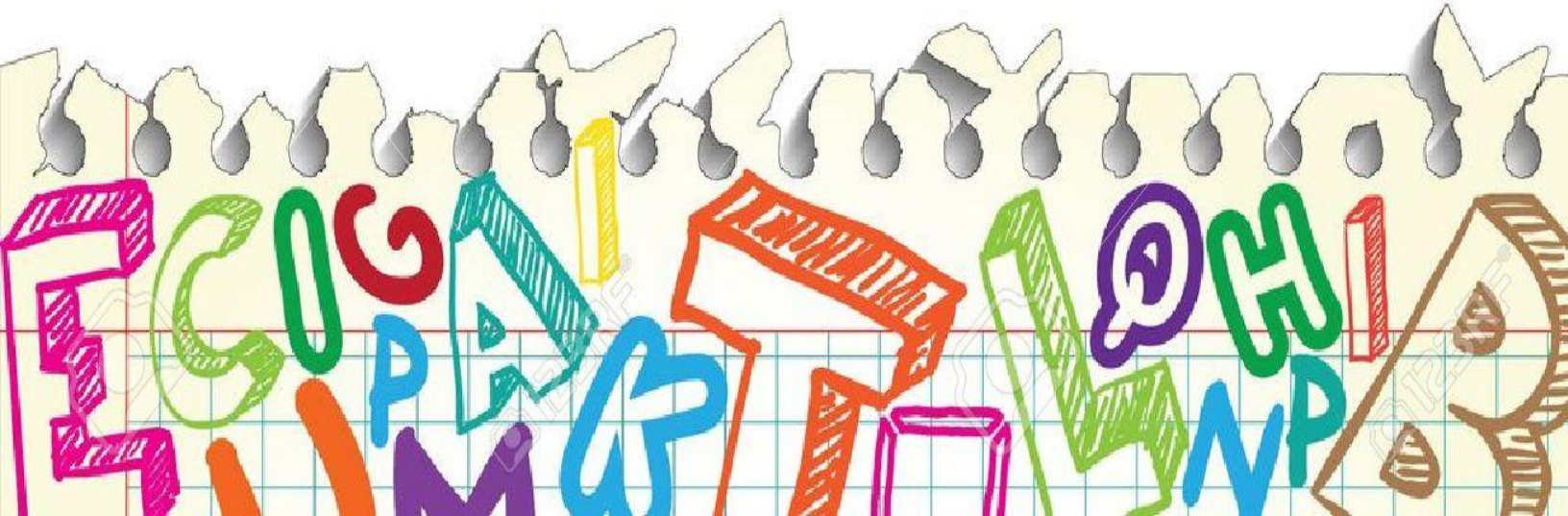
Three Great Rules

	1-1-1 Doubling	Drop the e	Change y to i	Do Nothing	
place + ed					_____
clap + ing					_____
jump + ing					_____
hurry + ed					_____
ship + ment					_____
safe + ty					_____

NWH 10/14



Math Assignments

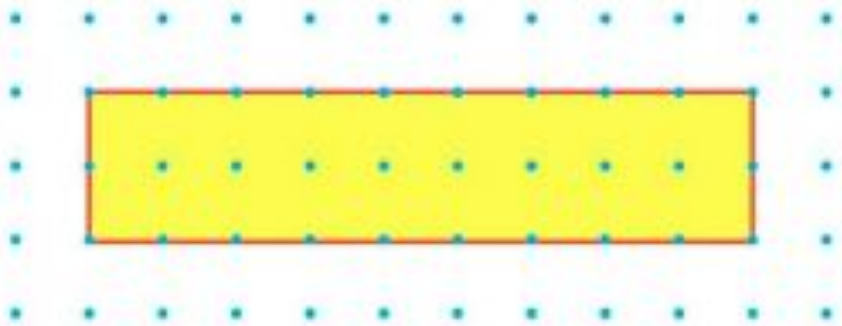


Name _____

Recognize Perimeter and Area

VOCABULARY
perimeter
unit square

On this page, the dots on the dot paper are 1 cm apart. Use the rectangle for Exercises 1–4.



1. What part of the rectangle is its **perimeter**?

_____

2. What part of the rectangle is its area?

_____

3. Find the perimeter. Draw tick marks to help.

_____

4. Find the area. Draw **unit squares** to help.

_____

5. Draw a rectangle 4 cm long and 3 cm wide on the dot paper. Find the perimeter and area.

Perimeter _____

Area _____

6. Explain how you found the area of the rectangle in Exercise 5.

_____

_____

_____

_____

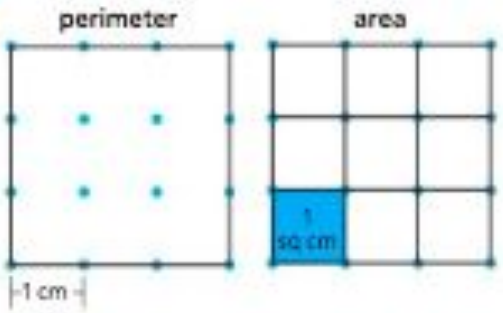
_____

_____

Find Perimeter and Area

Find the perimeter and area of each figure.
Remember to include the correct units in your answers.

7



Perimeter = _____

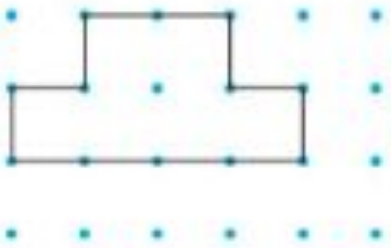
Area = _____

8

Perimeter = _____

Area = _____

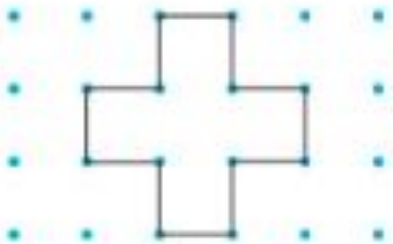
9



Perimeter = _____

Area = _____

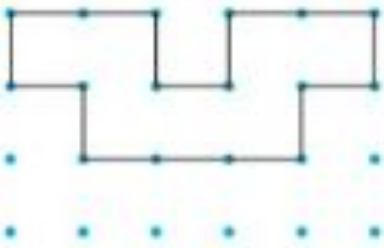
10



Perimeter = _____

Area = _____

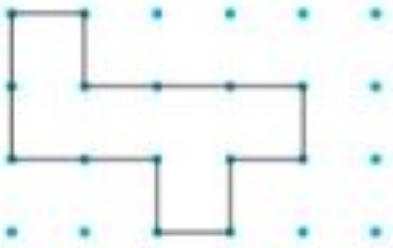
11



Perimeter = _____

Area = _____

12



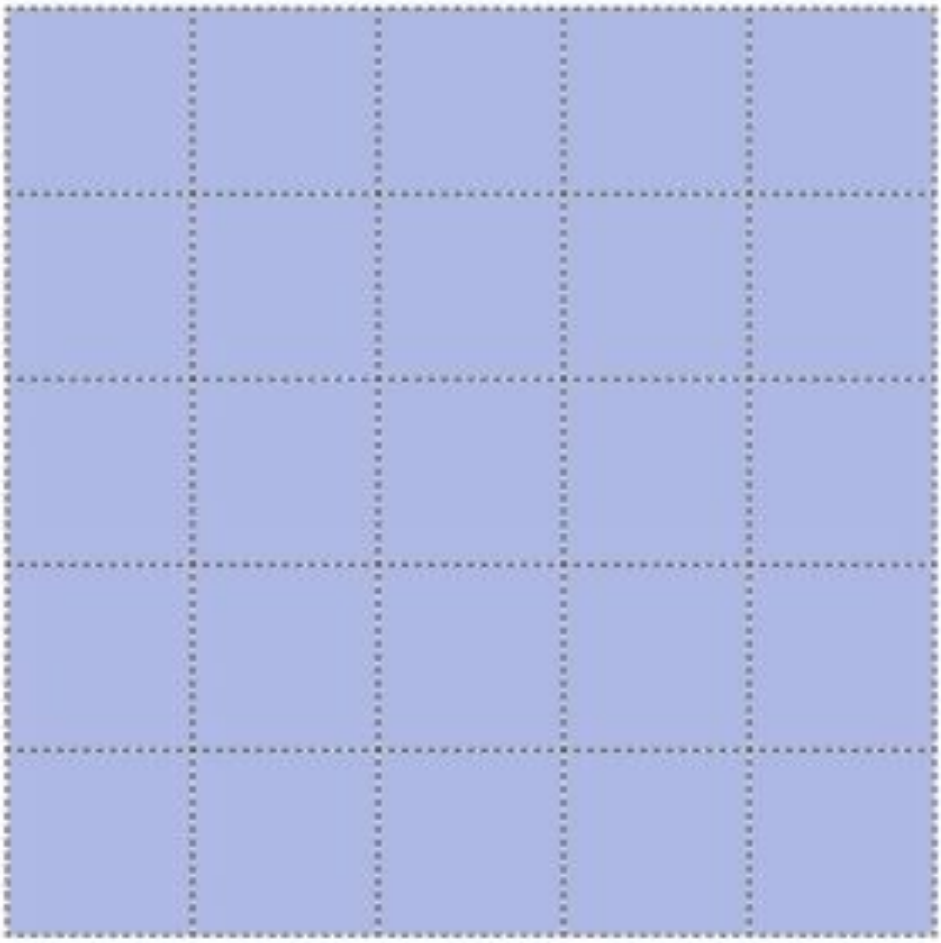
Perimeter = _____

Area = _____

Name _____

Tile a Rectangle

Cut out the 1-inch unit squares along the dashed lines.
Try to cut as carefully and as straight as you can.



Name _____

Tile a Rectangle

13 Use the 1-inch unit squares from page 311A to cover the rectangle below.

Be sure there are no gaps between the unit squares.

Be sure no unit squares overlap.

14 Draw lines with a straight edge to show the unit squares. The number of unit squares is the area in square inches. What is the area?

_____

15 Use an inch ruler to measure the side lengths of the rectangle. Label the length and the width.

_____

_____

16 Write a multiplication equation to show the area.

_____

Tile a Rectangle (continued)

Cover each rectangle with 1-inch unit squares. Count the squares to find the area. Then write an equation to show the area.

17

The area is _____. The equation is _____.

18

The area is _____. The equation is _____.

19 How many 1-inch unit squares are needed to cover a rectangle that is 7 inches long and 4 inches wide?

_____

20 What is the area of a rectangle that is 7 inches long and 4 inches wide?

_____

Check Understanding

Complete the sentences.

Perimeter measures _____.

Area measures _____.

Name _____

Write Different Equations for Area

1. Use the drawings. Show two ways to find the area of a rectangle that is 10 units long and 6 units wide.

2. Write equations for your two rectangle drawings.

_____ _____

3. Suppose the rectangle is 10 feet long and 6 feet wide. What is its area?

_____

4. Suppose the rectangle is 10 meters long and 6 meters wide. What is its area?

_____

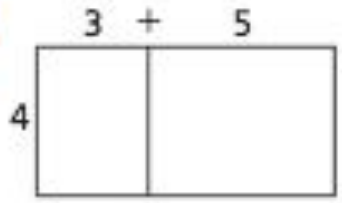
5. Use drawings and write equations to show two ways to find the area of a rectangle that is 9 yards long and 5 yards wide.

_____ _____

Rectangle Equations and Drawings

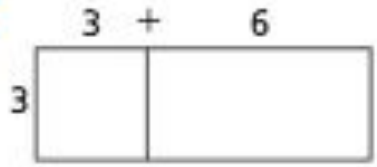
Write an equation for each rectangle.

6

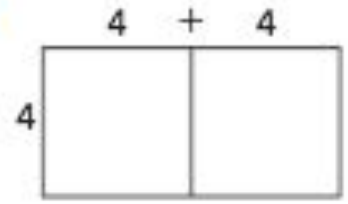


7

8



9



Draw a rectangle for each equation.

10 $(3 \times 3) + (3 \times 5) = 3 \times 8$

11 $(4 \times 5) + (4 \times 3) = 4 \times 8$

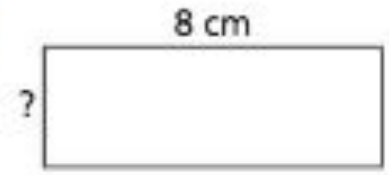
12 $(5 \times 3) + (5 \times 6) = 5 \times 9$

13 $(4 \times 6) + (4 \times 4) = 4 \times 10$

Name _____

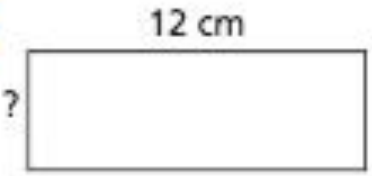
Find Unknown Side Lengths

Find the unknown side length in each rectangle.

14. 

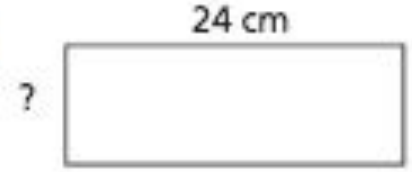
Area = 72 sq cm

_____

15. 

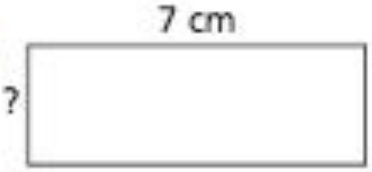
Perimeter = 38 cm

_____

16. 

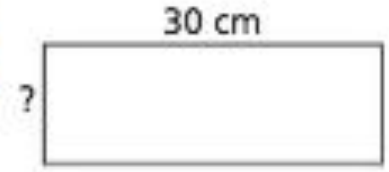
Perimeter = 64 cm

_____

17. 

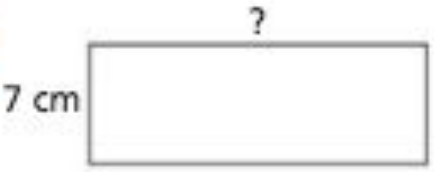
Area = 56 sq cm

_____

18. 

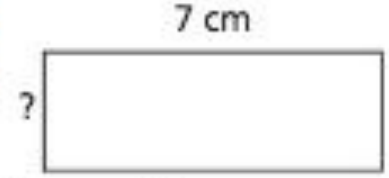
Perimeter = 72 cm

_____

19. 

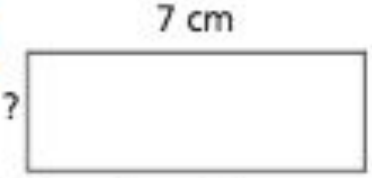
Area = 63 sq cm

_____

20. 

Area = 28 sq cm

_____

21. 

Perimeter = 20 cm

_____

Unknown Side Length Problems

Solve. Draw a rectangle to represent the situation.

Show your work.

22 Alexander and his grandfather are tiling their rectangular kitchen floor. They need to use 42 tiles. They are making rows of 7 tiles. How many rows do they make?

23 Martha has 63 quilt squares ready to sew together. She wants the quilt to be 9 rows long. How many squares will be in each row?

24 Rick is painting a mural of different sizes of rectangles, with no gaps or overlaps of the rectangles. He has enough paint to cover 15 square yards. He wants the mural to be 3 yards long. How wide can the mural be?

25 Mr. Baker is making a box using all of a 48-inch strip of oak. The box will be 14 inches wide. How long will the box be?

Check Understanding

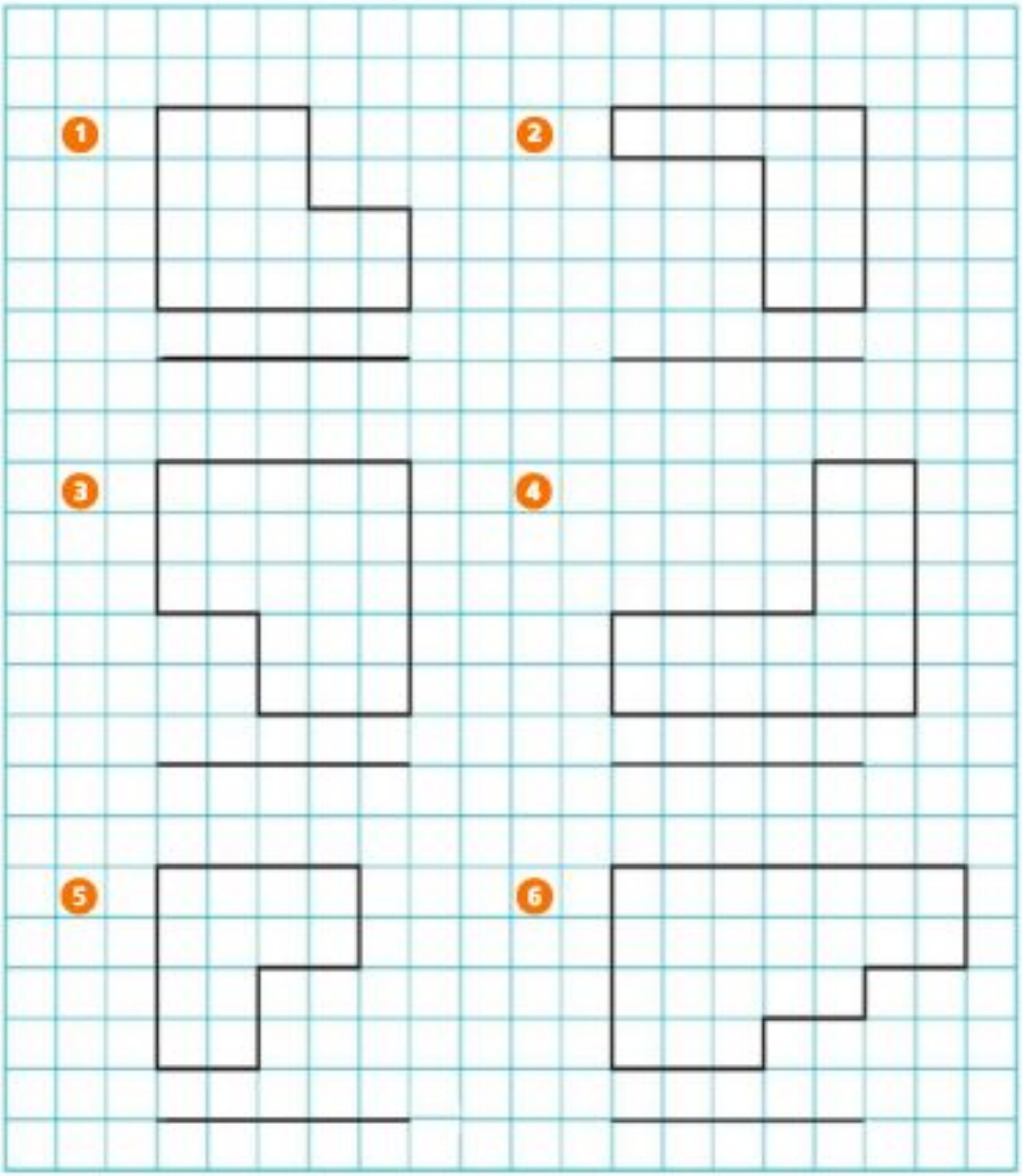
M Draw and label a rectangle with an area of 36 square centimeters and one side length of 4 centimeters. Find the unknown side length. Then find the perimeter.

Name _____

VOCABULARY
decompose

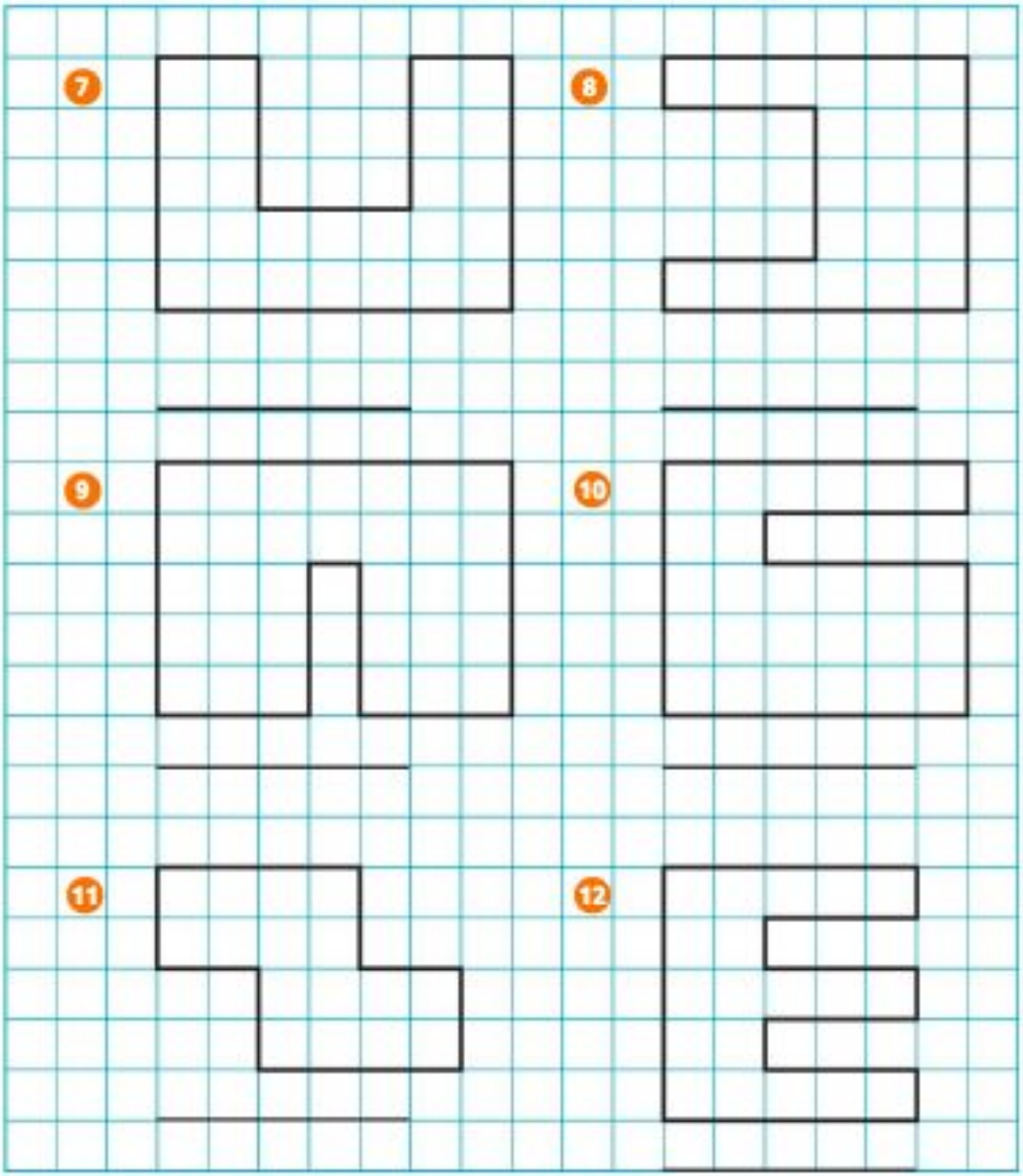
Find Area by Decomposing into Rectangles

Decompose each figure into rectangles.
Then find the area of the figure.



Find Area by Decomposing into Rectangles (continued)

Decompose each figure into rectangles. Then find the area of the figure.

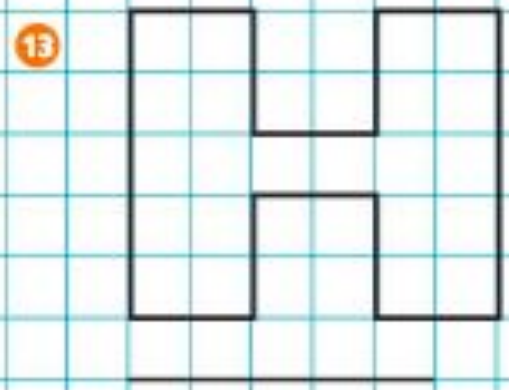


Name _____

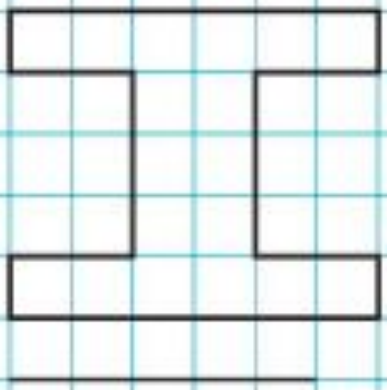
Find Area by Decomposing into Rectangles (continued)

Decompose each figure into rectangles. Then find the area of the figure.

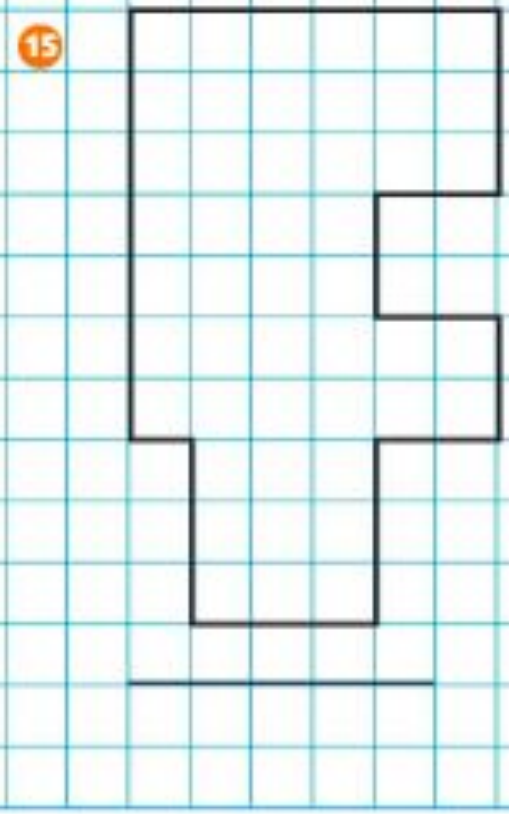
13



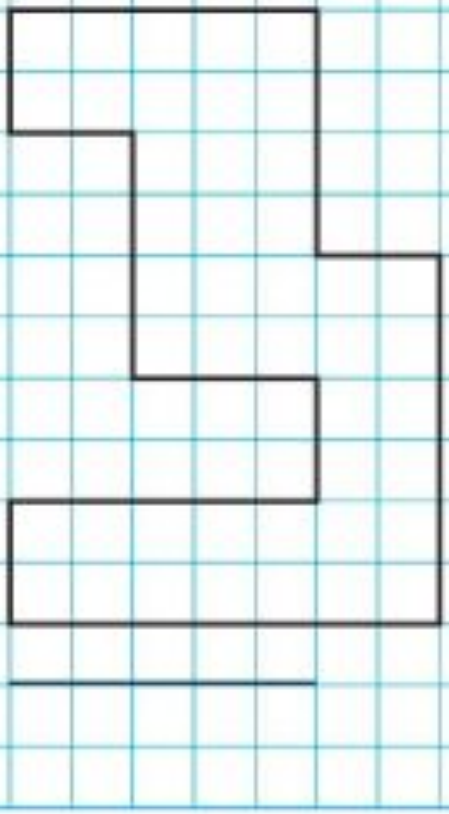
14



15



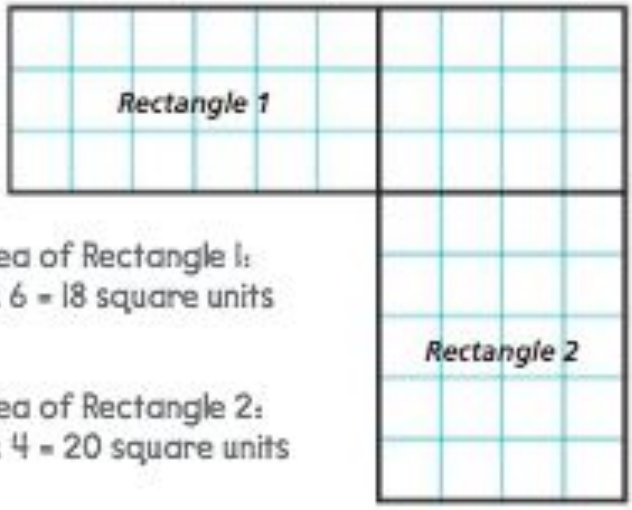
16



What's the Error?

Dear Math Students,

Today my teacher asked me to find the area of a figure. I knew that I could decompose the figure into rectangles. This is what I did.



Area of Rectangle 1:
3 x 6 = 18 square units

Area of Rectangle 2:
5 x 4 = 20 square units

Area of Figure:
18 + 20 = 38 square units

Is my work correct? If not, please correct my work and tell me what I did wrong. How do you know my answer is wrong?

Your friend,
Puzzled Penguin

17 Write an answer to Puzzled Penguin.

Check Understanding

Decompose the figure Puzzled Penguin decomposed into rectangles a different way and find the area of the figure.

Name _____

Solve Perimeter and Area Problems

Solve. Circle whether you need to find a perimeter, an area, or an unknown side length. Draw a figure to represent each situation.

Show your work.

1. The dimensions of a rectangular picture frame are 9 inches and 6 inches. What is the greatest size picture that would fit in the frame?

   Perimeter Area Side Length

2. A garden has the shape of a hexagon. Each side of the garden is 5 feet long. How much fence is needed to go around the garden?

   Perimeter Area Side Length

3. The length of a water slide is 9 yards. The slide is 2 yards wide. How much of the surface of the slide must be covered with water?

   Perimeter Area Side Length

4. Mr. Schmidt is installing 32 cubbies in the hallway. He puts 8 cubbies in each row. How many rows of cubbies can he make?

   Perimeter Area Side Length

Solve Perimeter and Area Problems (continued)

Solve. Circle whether you need to find a perimeter, an area, or an unknown side length. Draw a figure to represent each situation.

Show your work.

5. The floor of a delivery van has an area of 56 square feet and is 8 feet long. How many rows of 8 boxes that measure 1 foot by 1 foot can be put on the floor of the delivery van?

Perimeter Area Side Length

6. Zack is planning to make a flower garden. He has 24 one-yard sections of fence that he plans to place around the garden. He wants the garden to be as long as possible. What is the longest length he can use for the garden? How wide will the garden be?

Perimeter Area Side Length

7. An exercise room is 9 yards long and 7 yards wide. A locker room 8 yards long and 6 yards wide is attached to one end of the exercise room. How much floor space do the exercise room and the locker room take up?

Perimeter Area Side Length

8. Rosa's dog Sparky is 24 inches long. One side of Sparky's doghouse is 36 inches long and the other side is twice as long as Sparky. What is the distance around Sparky's doghouse?

Perimeter Area Side Length

Name _____

Solve Perimeter and Area Problems (continued)

Solve. Circle whether you need to find a perimeter, an area, or an unknown side length. Draw a figure to represent each situation.

Show your work.

9. Joanne made 16 fruit bars in a square pan. The fruit bars are 2 inches by 2 inches. What are the dimensions of the pan she used to bake the fruit bars?

Perimeter Area Side Length

10. A scout troop is making triangular pennants for their tents. Two sides of each pennant are 2 feet long and the third side is 1 foot long. How much binding tape is needed to go around 4 pennants?

Perimeter Area Side Length

11. A rectangular quilt is 5 feet wide and 7 feet long. How many feet of lace are needed to cover the edges of the quilt?

Perimeter Area Side Length

12. Amy has a piece of fleece fabric that is 4 feet wide and 6 feet long. How many squares of fleece fabric that are 1 foot wide and 1 foot long can she cut from the fabric?

Perimeter Area Side Length

Solve Perimeter and Area Problems (continued)

Solve. Circle whether you need to find a perimeter, an area, or an unknown side length. Draw a figure to represent each situation.

Show your work.

13 Vanita has 23 tiles with dimensions of 1 foot by 1 foot. She wants to tile a hallway that is 8 feet long and 3 feet wide. Does she have enough tiles? If not, how many more does she need?

Perimeter Area Side Length

14 Mrs. Lee has 48 one-foot pieces of garden fence. What dimensions should she use for the garden to have as much room as possible?

Perimeter Area Side Length

15 Martha has 27 striped squares and 27 dotted squares. She wants a quilt with rows of 6 squares. How many rows will the quilt have?

Perimeter Area Side Length

16 A 20-mile bike path is in the shape of a triangle. Don rode 6 miles and 8 miles on the two sides. How long is the third side of the path?

Perimeter Area Side Length

Check Understanding

17 Describe a real world situation when you would need to find perimeter and another for area.

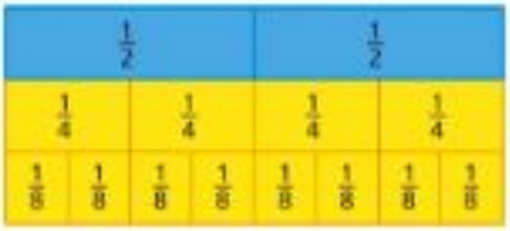
Name _____

Halves, Fourths, and Eighths

VOCABULARY
equivalent fractions

Two fractions are **equivalent fractions** if they name the same part of a whole.

Use your halves, fourths, and eighths strips to complete Exercises 1–4.



1. If you compare your halves strip and your fourths strip, you can see that 2 fourths are the same as 1 half.

   Complete these two equations:

   _____ fourths = 1 half $\frac{\square}{4} = \frac{1}{2}$

2. How many eighths are in one half? _____

   Complete these two equations:

   _____ eighths = 1 half $\frac{\square}{8} = \frac{1}{2}$

3. What are two fractions that are equivalent to $\frac{1}{2}$?

   _____

4. How many eighths are in one fourth? _____

   Complete these two equations:

   _____ eighths = 1 fourth $\frac{\square}{8} = \frac{1}{4}$

Thirds and Sixths

Use your thirds and sixths strips to answer Exercises 5–6.

5. How many sixths are in one third? _____

   Complete these two equations:

   _____ sixths = 1 third $\frac{\square}{6} = \frac{1}{3}$

6. How many sixths are in two thirds? _____

   Complete these two equations:

   _____ sixths = 2 thirds $\frac{\square}{6} = \frac{2}{3}$

What's the Error?

Dear Math Students,

Today my teacher asked me to name a fraction that is equivalent to $\frac{1}{2}$.

I wrote $\frac{2}{6} = \frac{1}{2}$.

Is my answer correct? If not, please correct my work and tell me what I did wrong.

Your Friend,
Puzzled Penguin

7. Write an answer to Puzzled Penguin.

_____

_____

_____

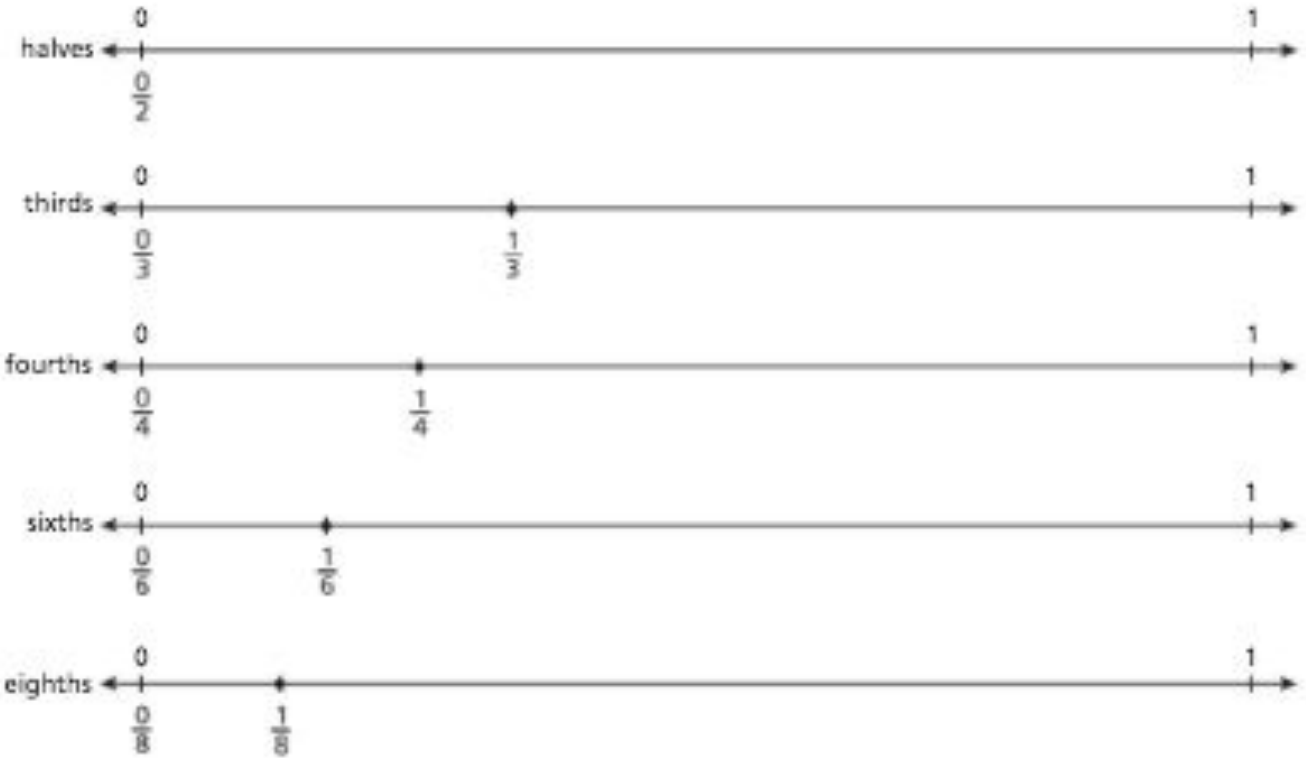
Check Understanding

Name another fraction equivalent to $\frac{1}{2}$ that Puzzled Penguin could have written. _____

Name _____

Equivalent Fractions on Number Lines

1. Complete each number line. Show all fractions including each fraction for 1.



2. Write an equivalence chain with fractions that equal $\frac{2}{2}$.

_____

3. Why are the fractions in the equivalence chain for $\frac{2}{2}$ equal?

_____

4. Why does the length of unit fractions grow smaller as their denominators get larger?

_____

_____

Equivalence Chains

Use your number lines from page 337 to write an equivalence chain.

5. With fractions that equal $\frac{1}{2}$ _____

6. With fractions that equal $\frac{1}{3}$ _____

7. With fractions that equal $\frac{2}{3}$ _____

8. With fractions that equal $\frac{1}{4}$ _____

9. With fractions that equal $\frac{3}{4}$ _____

10. With fractions that equal $\frac{8}{8}$ _____

Solve. Use what you have learned about equivalent fractions and about comparing fractions.

Show your work.

11. Jaime has $\frac{1}{2}$ foot of red ribbon and $\frac{4}{8}$ foot of green ribbon. Does he have more red ribbon or green ribbon?

_____

12. Chin and Maya collected conch shells at the beach. They both used the same kind of basket. Chin's basket is $\frac{3}{4}$ filled, and Maya's basket is $\frac{3}{3}$ filled. Who collected more shells?

_____

_____

Check Understanding

Explain how you could use a number line to help you solve Problem 12.

Name _____

Solve Fraction Problems

Solve. Draw diagrams or number lines if you need to.

GP 1 The shelves in Roger's bookcase are $\frac{7}{8}$ yard long. Ana's bookcase has shelves that are $\frac{5}{8}$ yard long. Whose bookcase has longer shelves? How do you know?

2 Rosa buys $\frac{3}{4}$ pound of cheese. Lucy buys $\frac{3}{8}$ pound of cheese. Who buys more cheese? Explain your answer.

3 Vera has same-size muffin pans. She fills $\frac{8}{4}$ pans with cranberry muffins and $\frac{8}{6}$ pans with banana muffins. Does Vera have fewer cranberry muffins or banana muffins? How do you know?

4 Lester walks $\frac{3}{4}$ mile to school. Bert said that he walks farther because he walks $\frac{6}{8}$ mile to school. Is his statement correct? Explain your answer.

5 Rusty painted $\frac{5}{6}$ of a mural for a hallway. Has he painted more than half of the mural? Explain your answer.
Hint: Find an equivalent fraction in sixths for $\frac{1}{2}$.

Solve Fraction Problems (continued)

Solve. Draw diagrams or number lines if you need to.

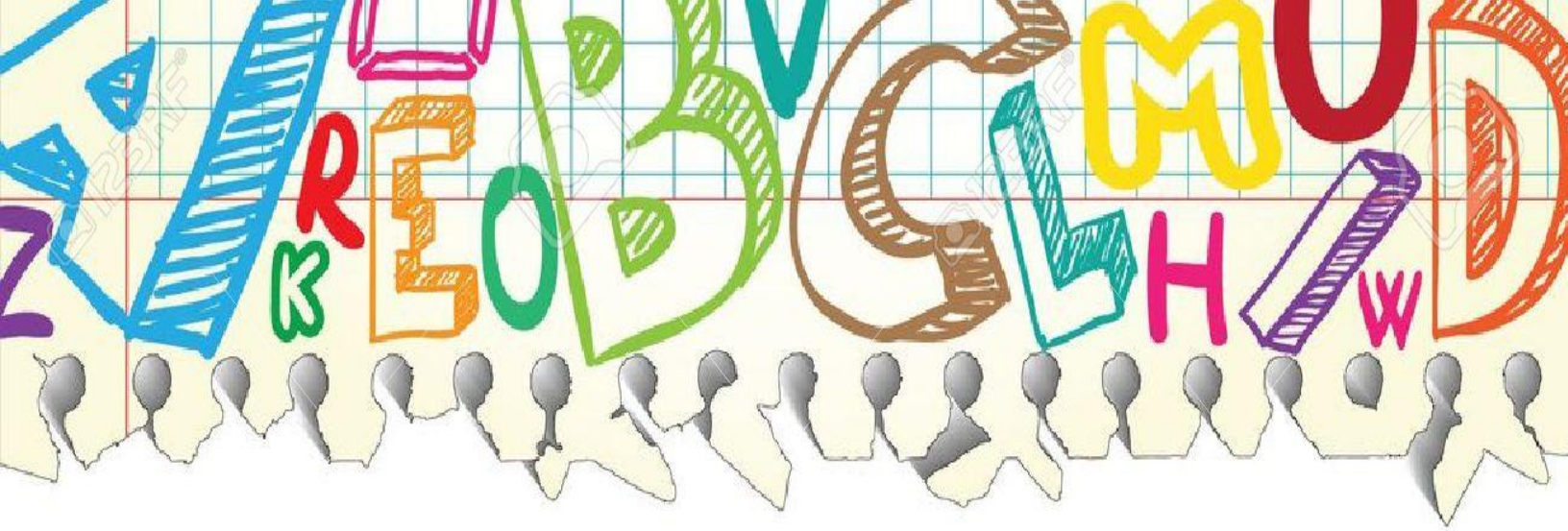
6 Pearl used $\frac{3}{3}$ yard of fabric to make a pillow. Julia made her pillow from $\frac{4}{4}$ yard of fabric. They both paid $5 a yard for their fabric. Who paid more for fabric? How do you know?

7 Deena's pan has a total of $\frac{2}{5}$ liter of water. John's pan has a total of $\frac{5}{2}$ liters of water. Whose pan has more water? How do you know?

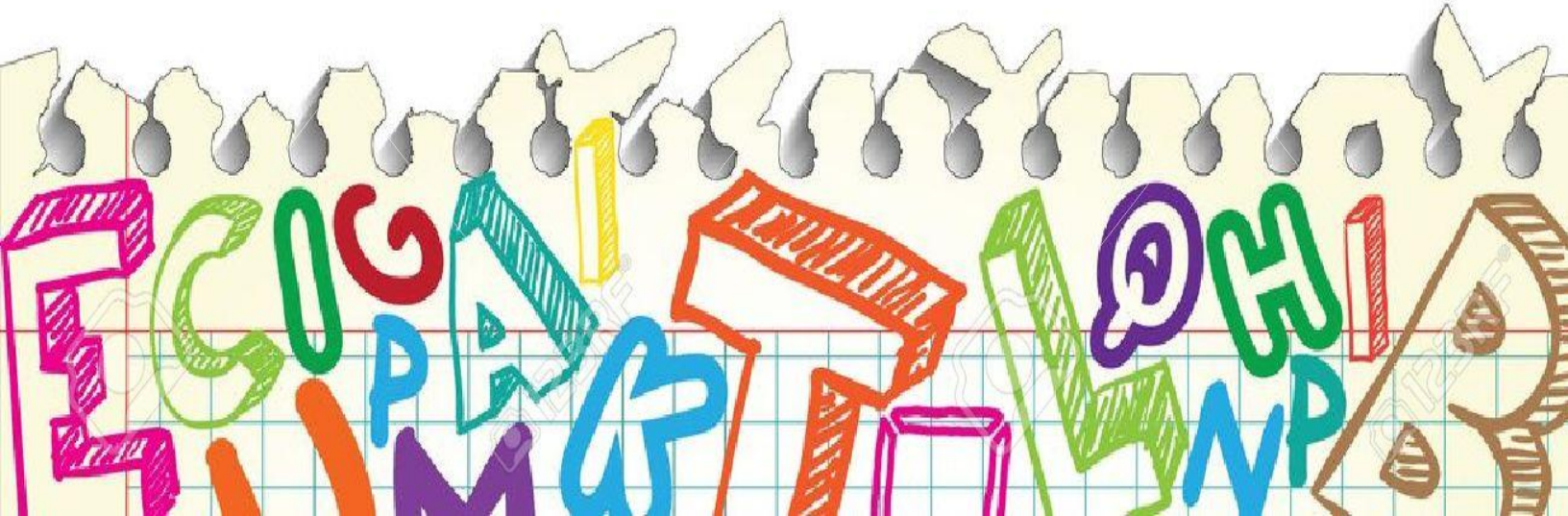
8 Andy, Lu, and Carlos have $\frac{3}{3}$, $\frac{3}{4}$, and $\frac{3}{6}$ dozen pencils, but not in that order. Andy has the fewest pencils and Lu has the most. How many pencils does each boy have? Explain.

Check Understanding

Draw fraction bars or a number line to compare the fractions in Problem 8.



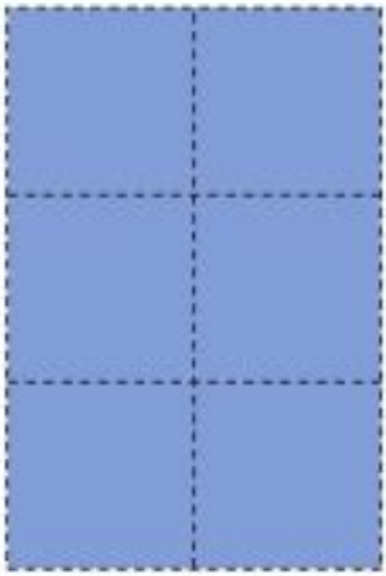
Optional Math Activities

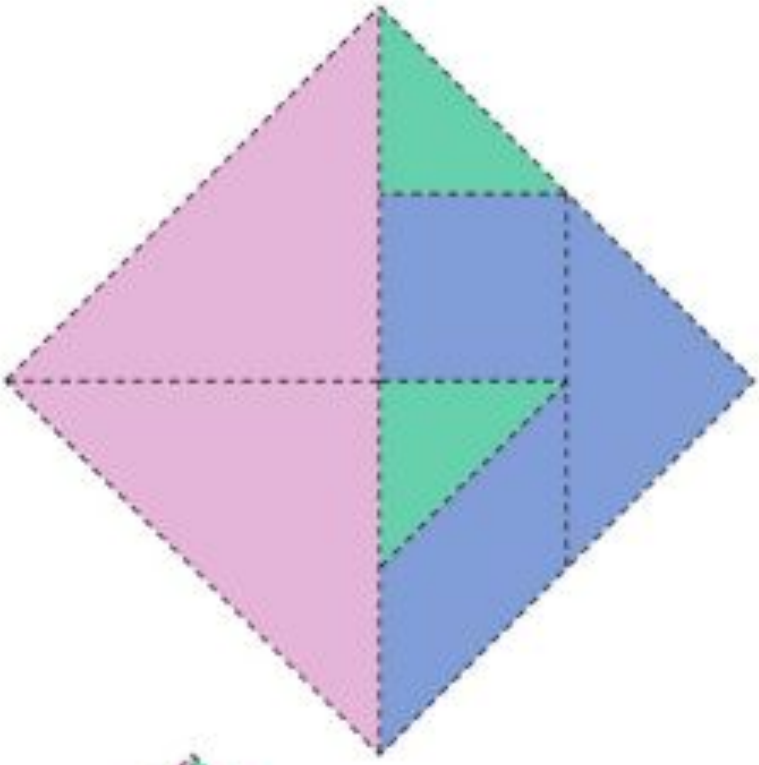


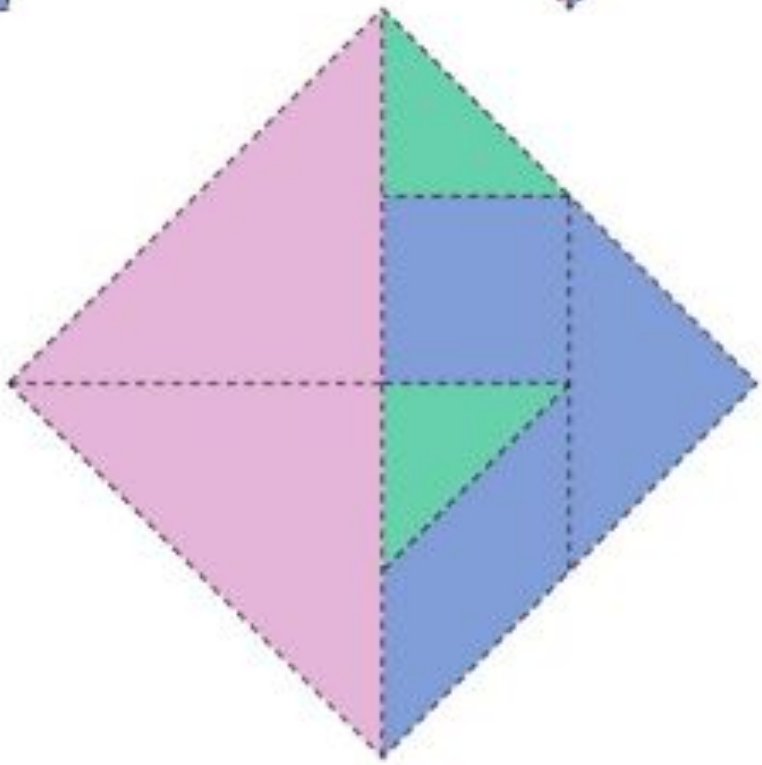
Name _____

Explore Tangrams

Cut one tangram figure into pieces along the dotted lines. Try to cut as carefully and as straight as you can. Save the other figures to use later.





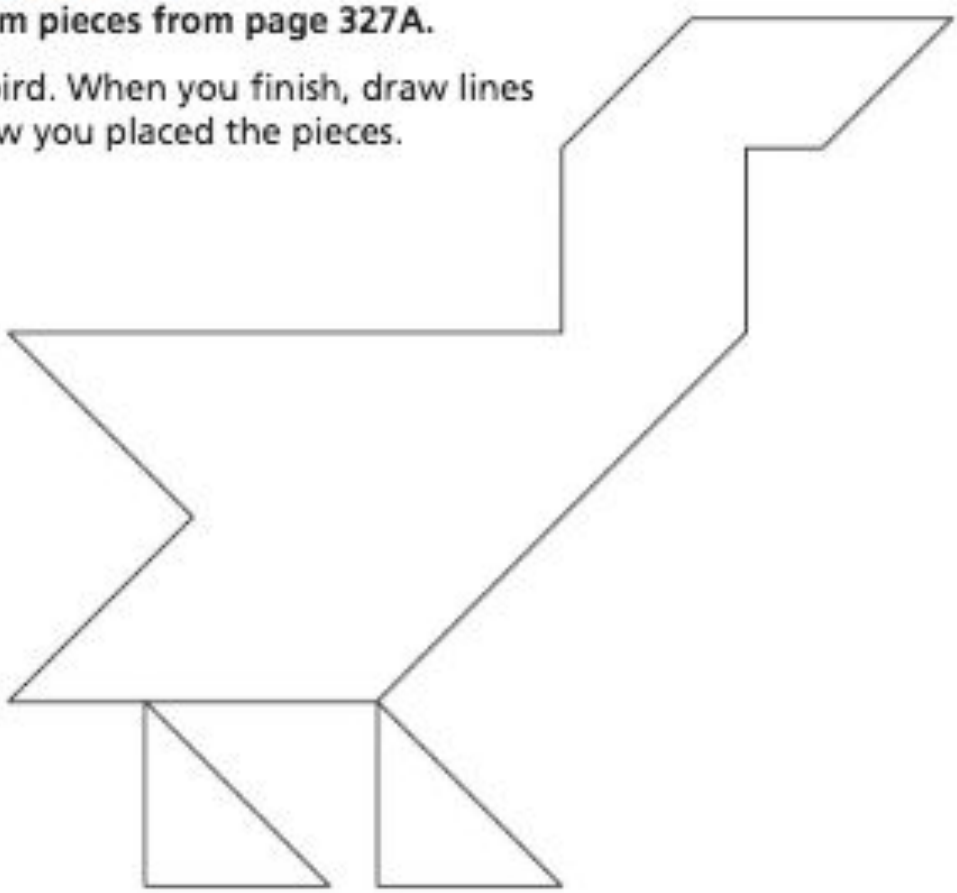


Name _____

Solve Tangram Puzzles

Use the tangram pieces from page 327A.

1. Make this bird. When you finish, draw lines to show how you placed the pieces.



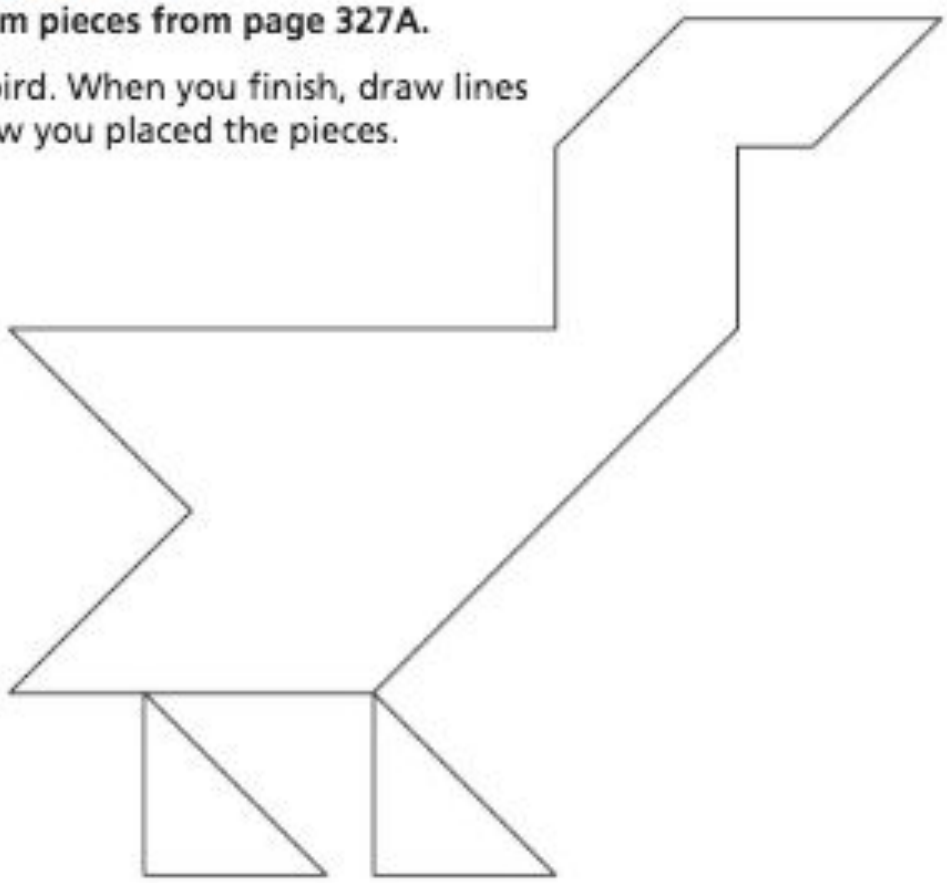
2. Make this rectangle. Draw lines to show how you placed the pieces. Hint: You do not need all the pieces.

Name _____

Solve Tangram Puzzles

Use the tangram pieces from page 327A.

1. Make this bird. When you finish, draw lines to show how you placed the pieces.

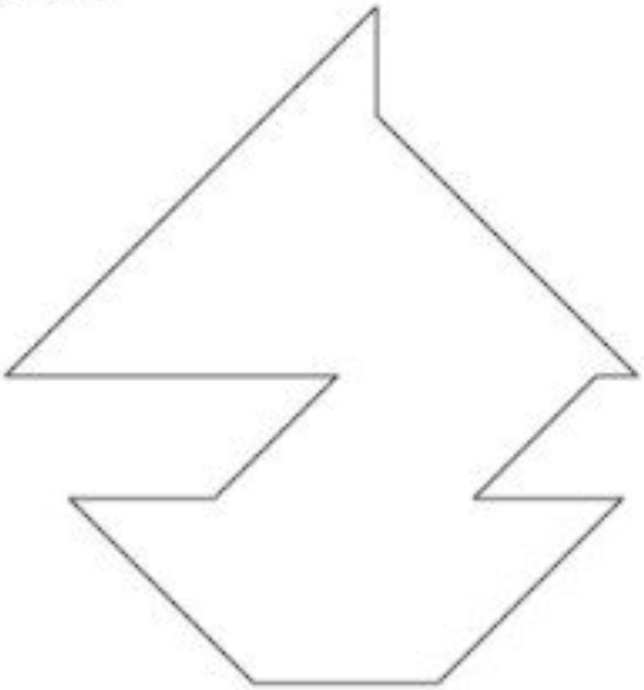


2. Make this rectangle. Draw lines to show how you placed the pieces. Hint: You do not need all the pieces.

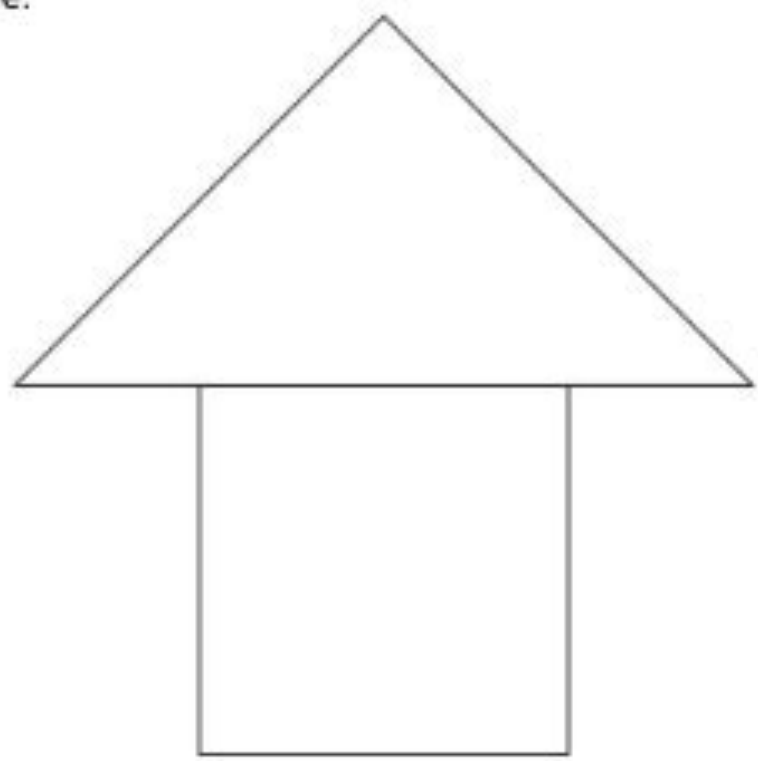
Solve Tangram Puzzles (continued)

Use the tangram pieces. Draw lines to show how you placed the pieces.

3 Make this boat.



4 Make this tree.



Name _____

Use Tangram Pieces to Find Area

5 Use all seven tangram pieces. Cover this rectangle.

6 What is the area of the rectangle?

_____

7 Use any tangram pieces. Cover this rectangle.

8 What is the area of the rectangle?

_____

Use Tangram Pieces to Find Area (continued)

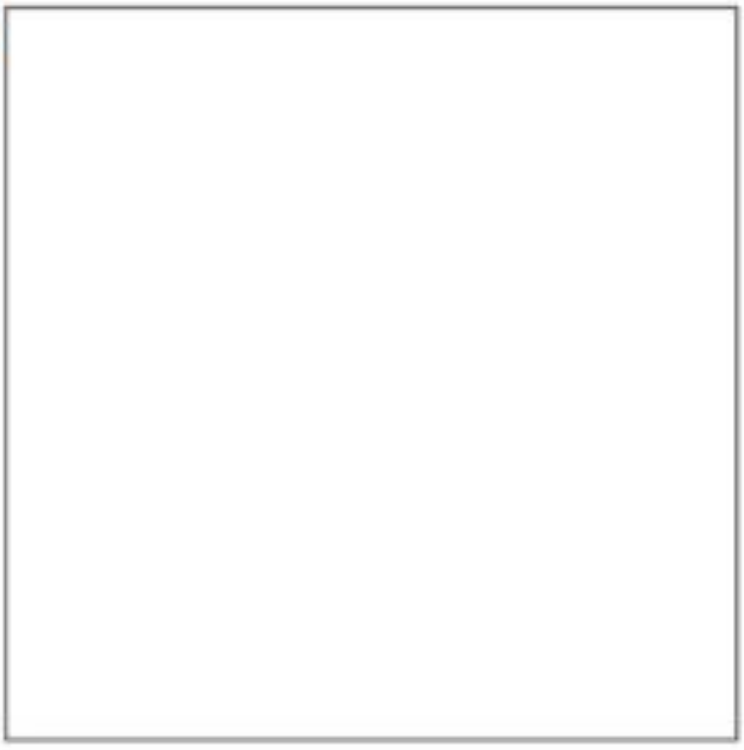
Use any tangram pieces. Cover each rectangle.

9

What is the area of the rectangle?

_____

10



What is the area of the square?

_____

Name _____

Use Tangram Pieces to Find Area (continued)

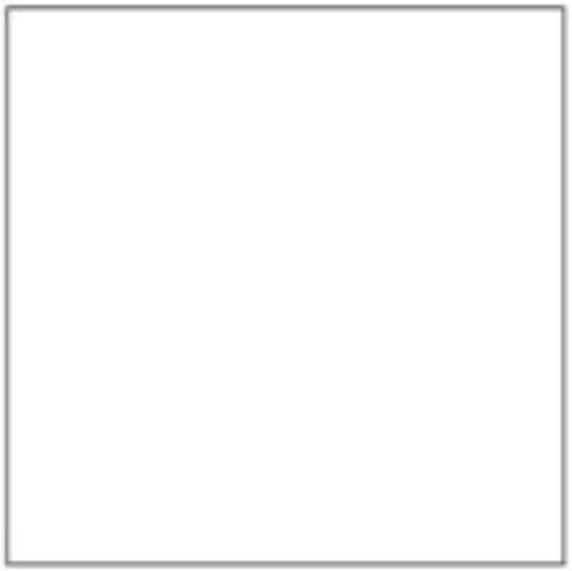
Use any tangram pieces. Cover each figure.

11

What is the area of the rectangle?

_____

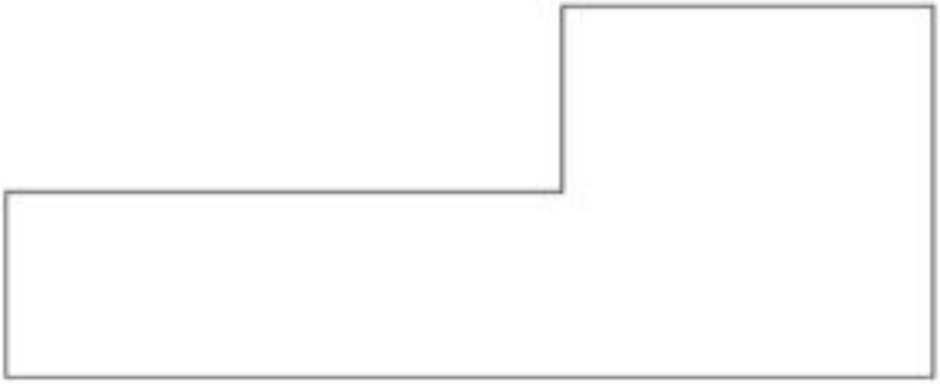
12



What is the area of the square?

_____

13



What is the area of the figure?

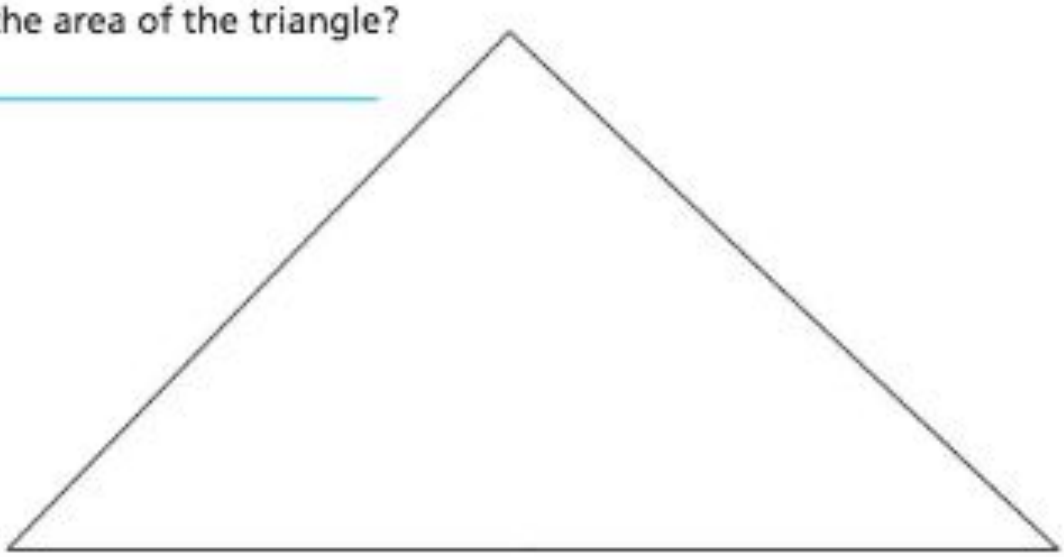
_____

Use Tangram Pieces to Find Area (continued)

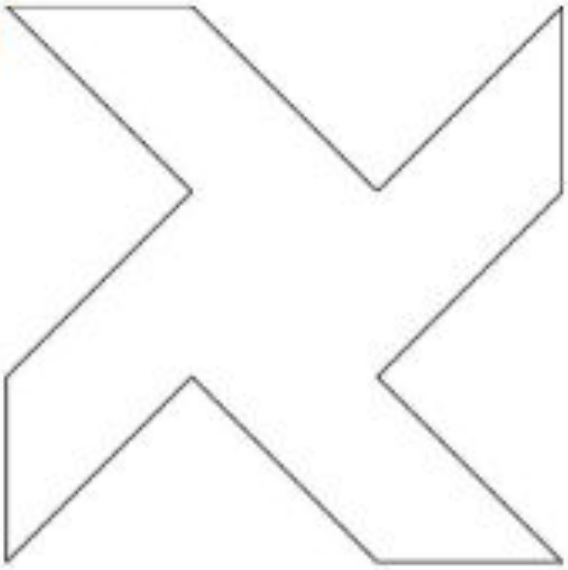
Use any tangram pieces. Cover each figure.

14 What is the area of the triangle?

_____



15



What is the area of the figure?

_____

Check Understanding

What is the area of a figure made with the seven tangram pieces? _____

Name _____

Fractions and Paper Folding

The art of paper folding began in China. Later, Japan's version of paper folding, called origami, became very popular. Origami sculptures are made by folding and sculpting a flat sheet of square paper without cuts or glue.

Complete.

1. Fold a square sheet of paper in half diagonally. What part of the square is each triangle?

_____

2. Fold the paper in half again. What part of the square is each triangle?

_____

3. Fold the paper in half again. Open the paper. What part of the square is each triangle?

_____

4. Explain how you know the eight parts have the same area.

_____

_____

5. Fold four triangles to the center as shown on the right. What part of the square is each triangle? Explain how you know.

_____

_____

_____

This basic origami fold is used for making many objects.

Fractions and Design

Complete.

6 Fold a square sheet of paper in half three times.
Open the paper. Choose two different colors.
Color every other rectangle or triangle one color.
Color the other rectangles or triangles the second color.

7 Write 3 equivalent fractions for the part of the square that has the same color.

_____

8 Predict the number of shapes you would make if you folded the square 4 times. Explain.

_____

_____

_____

_____

_____