2024 Summer Work

- Entering 5th Grade -

Dear Rising 5th Grade Families,

Happy summer break! Attached you will find the **required** summer math and reading assignments. This summer, you are also required to read **at least two** books of your choice and **one assigned.** Should you feel stuck selecting a book of your own, please see the Summer Hub website for a suggested book list for 5th Graders.

CHOICE BOOK ASSIGNMENT

By **July 31st**, you are to have finished reading one of the books of your choice. Upon completion, please write a letter to your "English-teacher-to-be" using the guidelines below:

Letter Guidelines

1. The length of the letter should be three paragraphs. Please use loose-leaf paper, a pencil, and _skip lines_. If you like, you may use a computer to write your letter- just print it out and mail it to the address below.
2. In paragraph one, provide a summary of the plot. This should be approximately five to seven sentences. As always, vocabulary, use of descriptive words, spelling, and sentence structure are important.
3. In paragraph two, explain what you liked or did not like about this book. Would you recommend it to a friend? Why?
4. In the final paragraph, explain what you have been doing during the summer. Write about something you have enjoyed.

The letter should be sent to the address below when completed:

English Teacher of (Your Name)
Green Vale School
250 Valentines Lane
Glen Head, New York 11545

REQUIRED READING: Save Me A Seat by Sarah Weeks

You should read this book in the latter part of the summer. Please complete the assignment provided (see below) prior to your arrival in September. This assignment should be completed on loose-leaf paper and will be collected during the 1st week of school. Save Me A Seat will be the focus of the reading curriculum in the beginning of the new school year.

REQUIRED MATH: Big Ideas Math Packet

You need to complete the packet by the end of the summer. Please return the packet in the fall to your 5th Grade Homeroom teacher.

Enjoy!
See you soon,
The 5th Grade Team and Heather Wagner

Save Me A Seat
By Sarah Weeks

A. CHOOSE and answer 5 from the choices below:
B. List the characters and describe them.
C. Describe the setting of the story.
D. What problem does one of the characters have, and how does he or she solve it?
E. List 5 major events in the story in the correct order.
F. What lesson did you learn from this story?
G. If you were in a problem situation like the one in the book, how would you have acted? Be sure to state the problem.
H. Tell 5 ways the main character is like/not like you.
I. Compare this book with the last book you read. What are the similarities? Differences?
J. Which character in the book would you choose for a friend? Why?
K. Did you like the way the story ended? Why or why not?

Fountas & Pinnell Level P-Q

Alvin Ho (series) by Lenore Look
Bad Kitty Chapter Books (series) by Nick Bruel
Bermuda Triangle by Andrew Donkin
The Carver Chronicles (series) by Karen English
Chocolate Fever by Robert Kimmel Smith
Clubhouse Mysteries (series) by Sharon M. Draper
Encyclopedia Brown by Leonard W. Shortall
George's Marvelous Medicine by Roald Dahl
Fantastic Mr. Fox by Roald Dahl
George's Marvelous Medicine by Roald Dahl
Gooseberry Park by Cynthia Rylant
Here's Hank (series) by Henry Winkler and Lin Oliver
The Hundred Dresses by Eleanor Estes
Jake Maddox Girl Sports Stories (series) by Jake Maddox
Johnny Appleseed by Steven Kellogg
The Magic Shop (series) by Kate Egan
Rattlesnakes by Sandra Markle
Sideways Stories from Wayside School by Louis Sachar
Thank You Jackie Robinson by Barbara Cohen
Tut's Mummy Lost...and Found-Judy Donnelly/James Watling
The Twits by Roald Dahl
The World According to Humphrey (series) by Britt Birney
The Adventures of a South Pole Pig by Chris Kurts
Amazing but True Sports Stories by Phyllis and Zander Hollander
Anastasia On Her Own (series) by Lois Lowry
Arctic Lights, Arctic Nights-Jon Van Zyle/Debbie S. Miller
Bless This Mouse by Lois Lowry
Bunnicula (series) by James Howe
Dear Mr. Henshaw by Beverly Cleary
Dragon Quest by Jackie French Koller
Fourth Grade Celebrity by Patricia Giff
Fudge-a-Mania by Judy Blume
Goonie Bird (series) by Lois Lowry
The Great Wall of China-Leonard Everett Fisher
Homer Price by Robert McCloskey
I Survived (series) by Lauren Tarshis
Little House on the Prairie (series) by Laura Ingalls Wilder
Mason Dixon (series) by Claudia Mills

Mr. Popper's Penguins by Richard Atwater
Oggie Cooder by Sarah Weeks
Pie by Sarah Weeks
Standing Tall and Talented (series) by Amare' Stoudemire
Tales of a 4th Grade Nothing by Judy Blume
Twenty-One Elephants Still Standing by April Jones Prince
Star Wars,The Clone Wars (series) by Ryder Windham
Super Fudge (and other titles in series) by Judy Blume
The Whipping Boy by Sid Fleischman
The Amazing Days of Abby Hayes (series) by Anne Mazer
The Borrowers by Mary Norton
Brian's Winter by Gary Paulsen Charlotte's Web by E.B. White
Charlie and the Chocolate Factory by Roald Dahl
Charlie and the Great Glass Elevator by Roald Dahl
Chocolate by Hershey: A Story about Milton S. Hershey by Betty Burford
Crocodiles by Sandra Markle
Dear Mr. Hemshaw by Beverly Cleary
Desert Giant by Barbara Bash
Frindle by Andrew Clements
Glitter Girls and the Great Takeout (and other titles in series) by Meg Cabot
Greetings from Nowhere by Barbara O'Connor
The Hardy Boys (series) by Franklin W. Dixon
Hatchet by Gary Paulsen
The Indian in the Cupboard by Lynne Reid Banks
Jennifer Murdley's Toad by Bruce Coville
Jeremy Thatcher Dragon Hatcher by Bruce Coville
The Library Card by Jerry Spinelli
Lions by Sandra Markle
Otherwise known as Sheila the Great by Judy Blume Owls by Sandra Markle
The Report Card by Andrew Clements
Rules by Cynthia Lord
Saffy's Angels by Hilary McKay
The School Story by Andrew Clements Shiloh by Phyllis Reynolds Naylor
Stuart Little by E. B. White
The Tale of Despereaux by Kate DiCamillo
View From Saturday by E.L. Konigsburg

Name _____

Write the value of the underlined digit.

1. 45,<u>7</u>18	**2.** 8<u>2</u>,015	**3.** 14,78<u>9</u>	**4.** <u>6</u>2,397
5. 248,3<u>1</u>1	**6.** <u>9</u>25,583	**7.** 7<u>2</u>3,610	**8.** 19<u>4</u>,762
9. 403,2<u>2</u>7	**10.** <u>5</u>61,284	**11.** 315,6<u>7</u>5	**12.** 67<u>6</u>,219

Compare the values of the underlined digits.

13. <u>4</u>25 and <u>4</u>,037	**14.** <u>3</u>,715 and <u>3</u>41,095
15. <u>9</u>70 and 1<u>7</u>,525	**16.** 8,3<u>2</u>5 and 6,54<u>2</u>

17. A member of the track team runs 6 miles per hour. A car can drive 60 miles per hour. The car is how many times faster than the runner?

_____

18. A CD is on sale for $9. A computer is on sale for $900. The computer cost how many times more money than the CD?

19. In the number 45,823, is the value in the thousands place 10 times the value in the hundreds place? Explain.

20. Write the greatest number possible using each number card once. Then write the least six-digit number possible.

| 7 | 2 | 4 | 6 | 5 | 8 |

Greatest: _____   Least: _____

21. In the number 32,376, is the value in the ten thousands place 10 times the value in the hundreds place? Explain.

22. Write the greatest number possible using each number card once. Then write the least four-digit number possible.

| 8 | 1 | 3 | 9 |

Greatest: _____   Least: _____

Use the table.

23. The land area of which state has a 2 in the thousands place?

24. What is the value of the digit 9 in the land area of Georgia? in the land area of Hawaii? How do these values relate to each other?

25. Compare the value of the 3s in the land area of South Carolina.

U.S. State	Land Area (square miles)
Georgia	59,425
Hawaii	10,931
Kentucky	40,410
Ohio	44,825
South Carolina	32,030
West Virginia	24,230

Name _____

Write which place to use when comparing the numbers.

1. 31,492
    31,681
	2. 725,124
	    732,063
		3. 194,025
		    192,376

4. 20,954
    20,937
	5. 528,620
	    379,201
		6. 954,677
		    955,892

7. 471,204
    463,017
	8. 14,381
	    12,515
		9. 267,462
		    267,530

Compare.

10. 4,521 ◯ 4,530	11. 48,250 ◯ 49,123	12. 613,426 ◯ 612,578
13. 300,000 ◯ 30,000	14. 2,237 ◯ 3,136	15. 73,841 ◯ 80,950
16. 917,333 ◯ 917,421	17. 940,713 ◯ 876,924	18. 55,328 ◯ 55,327
19. 6,358 ◯ 6,361	20. 92,605 ◯ 92,506	21. 7,000 ◯ 600,000
22. 36,431 ◯ 36,413	23. 8,830 ◯ 8,645	24. 521,984 ◯ 507,699

Compare.

25. 24,650 $\bigcirc$ 20,000 + 4,000 + 600 + 5

26. thirty-five thousand $\bigcirc$ 350,000

27. seven hundred thousand, twenty-six $\bigcirc$ 726,000

28. four hundred ten thousand, sixty-five $\bigcirc$ 410,605

29. 675,419 $\bigcirc$ 600,000 + 70,000 + 5,000 + 400 + 10 + 9

30. 307,982 $\bigcirc$ 300,000 + 70,000 + 900 + 80 + 2

31. Two different canoes cost $2,275 and $2,075. Which is the lesser price?

32. If the leftmost digits of two multi-digit numbers are both 7, can you explain which number is greater? Explain.

33. Which digits do you compare first when comparing multi-digit numbers? Explain.

34. Use the table to answer the questions.

Name two cities that have a greater population than Seattle. Name two cities that have a population that is less than Boston.

City Population	
Boston, MA	673,184
Baltimore, MD	614,664
Charlotte, NC	842,051
Detroit, MI	672,795
Fort Worth, TX	854,113
Seattle, WA	704,352

Name_____

Find the sum or difference. Then check your answer.

1.   8,419
       + 3,725
      _____

2.   9,543
       − 6,213
      _____

3.   6,782
       + 7,009
      _____

4.   7,582
       − 1,483
      _____

5.   16,315
       +   8,527
      _____

6.   6,300
       − 4,275
      _____

7.   19,345
       −   3,721
      _____

8.   245,860
       +   36,173
      _____

9.   428,330
       +   54281
      _____

10. 634,726 − 45,218 = _____

11. 827,306 + 62,813 = _____

12. 325,090 + 127,305 = _____

13. 731,062 − 534,713 = _____

14. 902,470 − 410,625 = _____

15. 186,304 + 326,278 = _____

16. Your friend uses partial sums to add. Is your friend correct? Explain.

$$
\begin{array}{l}
35{,}000 \;=\; 30{,}000 \;+\; 5{,}000 \qquad\qquad\quad +\;20\;+\;4 \\
+\;14{,}365 \;=\; \underline{10{,}000 \;+\; 4{,}000 \;+\; 300 \;+\; 60 \;+\; 5} \\
\qquad\qquad\quad 40{,}000 \;+\; 9{,}000 \;+\; 300 \;+\; 80 \;+\; 9 \;=\; 49{,}389
\end{array}
$$

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17. Your friend uses partial sums to add. Is your friend correct? Explain.

$$
\begin{array}{l}
73{,}236 \;-\; 36 \qquad\quad 73{,}200 \qquad\quad 88{,}650 \\
\underline{+\;15{,}450} \quad\longrightarrow\quad \underline{+\;15{,}450} \quad\longrightarrow\quad +\quad\underline{36} \\
\qquad\qquad\qquad\qquad\quad 88{,}650 \qquad\quad 88{,}686
\end{array}
$$

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18. Which strategy would you use to subtract 7,075 from 63,109? Explain.

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19. There are about 700,000 students in a city. About 89,300 of the students are in the fourth grade. How many of the students are *not* in the fourth grade?

20. Students turn in a total of $43,975 from selling candles for a fundraiser. They turn in $9,250 on Monday. Then they turn in $7,175 each day on Tuesday and Wednesday. The rest of the money is turned in on Thursday. How much money is turned in on Thursday?

Name_____

Find the product.

1. 10 × 70 = _____

2. 30 × 80 = _____

3. 40 × 60 = _____

4. 50 × 22 = _____

5. 38 × 20 = _____

6. 70 × 62 = _____

7. 45 × 30 = _____

8. 38 × 40 = _____

9. 25 × 90 = _____

10. 60 × 81 = _____

11. 10 × 37 = _____

12. 17 × 90 = _____

Find the missing factor.

13. 40 × _____ = 1,600

14. _____ × 50 = 1,000

15. _____ × 30 = 1,800

16. 90 × _____ = 7,200

17. 20 × _____ = 600

18. _____ × 10 = 800

Compare.

19. 50 × 43 ◯ 2,000

20. 62 × 40 ◯ 2,500

21. 45 × 60 ◯ 2,700

22. 40 × 24 ◯ 1,000

23. 54 × 50 ◯ 2,700

24. 36 × 40 ◯ 1,500

25. A driver makes a daily commute of 44 total miles. He worked 20 days during the month. How many total miles did he drive for the month?

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26. A school has 35 classrooms with 30 seats in each classroom. How many students can fit in the school?

Write the multiplication equation represented by the number line.

27.


```
0   60  120 180 240 300 360 420 480 540 600 660 720
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_____ × _____ =

28.


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0   80  160 240 320 400 480 540 620 700 800 880
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_____ × _____ =

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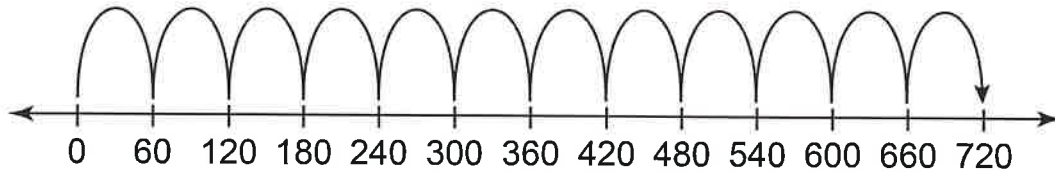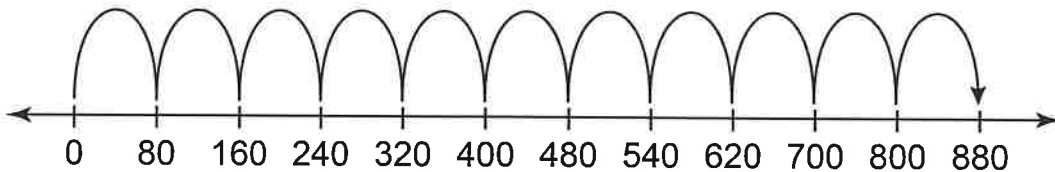
29. Explain how you can use $30 \times 20 = 600$ to find 30×22.

30. The product of a number and three times that number is 2,700. What are the numbers?

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31. In a hotel, there are 17 floors and 60 rooms on each floor. There are 1,108 guests registered for a conference at the hotel. How many guests will not have a room?

32. There are 50 more wrestlers at the county wrestling meet than at the city wrestling meet. The city meet has 30 teams, each with 14 wrestlers. How many wrestlers are at the county meet?

Name_____

Find the product.

1. $28 \times 41 = $ _____

2. $54 \times 31 = $ _____

3. $64 \times 82 = $ _____

4. $65 \times 52 = $ _____

5. $13 \times 88 = $ _____

6. $24 \times 27 = $ _____

7. $32 \times 14 = $ _____

8. $41 \times 19 = $ _____

9. $72 \times 76 = $ _____

10. $64 \times 48 = $ _____

11. $61 \times 35 = $ _____

12. $46 \times 75 = $ _____

13. $42 \times 73 =$ _____

14. $58 \times 84 =$ _____

15. $84 \times 84 =$ _____

16. $95 \times 95 =$ _____

17. What number can you multiply the number of bowling balls by to find the total weight? Use this pattern to complete the table.

Number of Bowling Balls	6	12	18	24	30
Total Weight (in Pounds)	60	120	150		

18. A box of golf balls contains 3 balls. The boxes come in a case, with 16 boxes per case. The cases are shipped in a crate, with 12 cases per crate. How many golf balls are there in a crate?

Name_____

Find the quotient. Then check your answer.

1. $\boxed{}$ $6\overline{)474}$	**2.** $\boxed{}$ R____ $7\overline{)538}$	**3.** $\boxed{}$ $2\overline{)1,904}$
4. $\boxed{}$ $3\overline{)2,523}$	**5.** $\boxed{}$ R____ $5\overline{)5,138}$	**6.** $\boxed{}$ R____ $4\overline{)8,349}$
7. $5\overline{)492}$	**8.** $2\overline{)394}$	**9.** $4\overline{)189}$
10. $7\overline{)847}$	**11.** $7\overline{)981}$	**12.** $9\overline{)840}$

Find the quotient. Then check your answer.

13.

$6\overline{)804}$

14.

$3\overline{)786}$

15.

$6\overline{)164}$

16.

$5\overline{)993}$

17.

$5\overline{)3,315}$

18.

$4\overline{)7,755}$

19.

$6\overline{)3,069}$

20.

$9\overline{)6,717}$

21.

$5\overline{)3,837}$

22. At a game, there are 1,705 fans in attendance. Every fifth fan receives a prize. How many fans receive a prize?

23. Which expression does *not* have a 3-digit quotient? Explain how you know without solving.

$795 \div 2$ $394 \div 3$

$605 \div 4$ $491 \div 5$

24. There are 1,728 seats in an auditorium. The seats are in 9 equal sections. How many seats are in each section?

Name _____

Find the factor pairs for the number.

1. 21	**2.** 40	**3.** 62
4. 81	**5.** 16	**6.** 36
7. 57	**8.** 95	**9.** 20
10. 32	**11.** 53	**12.** 49
13. 76	**14.** 66	**15.** 17
16. 85	**17.** 96	**18.** 23

List the factors of the number.

19. 27	**20.** 70	**21.** 18
22. 52	**23.** 65	**24.** 34

25. Why does a number that has 6 as a factor also have 2 as a factor?

26. The number below has 5 as a factor. What could the unknown digit be?

67_____

27. Which numbers have 3 as a factor?

21   43   326   1,275   600   35

28. Which numbers have 2 as a factor?

30   78   2,485   500   29   283

29. You have 2 pages of stickers with 25 stickers on each page. Can you share the stickers equally between yourself and two friends?

30. A gardener has 48 plants. He wants to put the same number of plants in each row of the garden without any left over. Should he put 6, 9, or 10 plants in each row? Explain.

Name _____

Write the first six numbers in the pattern. Then describe another feature of the pattern.

1. Rule: Add 6.

First number: 15

15, ___, ___, ___, ___, ___

2. Rule: Divide by 3.

First number: 1,458

1,458, ___, ___, ___, ___, ___

3. Rule: Subtract 4.

First number: 80

80, ___, ___, ___, ___, ___

4. Rule: Multiply by 6.

First number: 2

2, ___, ___, ___, ___, ___

5. Rule: Divide by 4.

First number: 4,096

6. Rule: Subtract 9.

First number: 100

7. Rule: Multiply by 3.

First number: 4

8. Rule: Add 10.

First number: 25

9. Rule: Subtract 7.

First number: 70

10. Rule: Multiply by 2.

First number: 6

Use the rule to generate a pattern of four numbers.

11. Rule: Multiply by 7.

12. Rule: Subtract 10.

13. Rule: Add 5.

14. Rule: Divide by 2.

15. Rule: Multiply by 4.

16. Rule: Add 9.

17. List the first ten multiples of 5. What patterns do you notice with the digits in the ones place? in the tens place?

Does this pattern continue beyond the tenth number in the pattern?

18. Your friend gets his hair cut every 35 days. How many times will your friend get his hair cut in 1 year?

19. There are 350 students enrolled in your friend's school at the beginning of the school year. Each month, 7 new students enroll and 2 students leave. How many students will be enrolled in the school after 7 months?

Name _____

Find an equivalent fraction.

1. $\dfrac{1}{4} = \dfrac{1 \times \boxed{}}{4 \times \boxed{}} = \dfrac{\boxed{}}{\boxed{}}$

2. $\dfrac{6}{5} = \dfrac{6 \times \boxed{}}{5 \times \boxed{}} = \dfrac{\boxed{}}{\boxed{}}$

Find the equivalent fraction.

3. $\dfrac{1}{3} = \dfrac{\boxed{}}{12}$

4. $\dfrac{2}{4} = \dfrac{4}{\boxed{}}$

5. $\dfrac{5}{6} = \dfrac{\boxed{}}{12}$
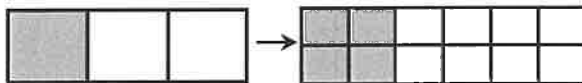
6. $\dfrac{10}{6} = \dfrac{100}{\boxed{}}$

Find an equivalent fraction.

7. $\dfrac{2}{10}$

8. $\dfrac{6}{3}$

9. $\dfrac{4}{8}$

Find two equivalent fractions.

10. $\dfrac{2}{2}$

11. $\dfrac{9}{6}$

12. $\dfrac{3}{4}$

---

13. What is Newton's fraction?

My fraction is equivalent to $\dfrac{4}{5}$ and has a denominator that is 2 more than its numerator.

14. Your friend says she can write a fraction equivalent to $\dfrac{3}{6}$ that has a denominator of 8 and a whole number in the numerator. Is your friend correct? Explain.

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15. A recipe calls for 1 teaspoon of basil. You only have a $\dfrac{1}{4}$ teaspoon measuring spoon. What fraction of a teaspoon of basil, in fourths, do you need?

16. A family lives in Canada for $\dfrac{1}{4}$ of the year. Each year has 12 months. What fraction of the year, in twelfths, does the family *not* live in Canada?

Name _____

Compare.

1. $\dfrac{4}{6}$ ◯ $\dfrac{4}{8}$

2. $\dfrac{3}{12}$ ◯ $\dfrac{5}{6}$

3. $\dfrac{30}{100}$ ◯ $\dfrac{8}{8}$

4. $\dfrac{2}{3}$ ◯ $\dfrac{3}{4}$

5. $\dfrac{2}{10}$ ◯ $\dfrac{5}{12}$

6. $\dfrac{3}{9}$ ◯ $\dfrac{5}{15}$

7. $\dfrac{6}{8}$ ◯ $\dfrac{10}{20}$

8. $\dfrac{8}{4}$ ◯ $\dfrac{5}{3}$

9. $\dfrac{1}{4}$ ◯ $\dfrac{2}{10}$

10. $\dfrac{5}{1}$ ◯ $\dfrac{5}{5}$

11. $\dfrac{4}{3}$ ◯ $\dfrac{2}{2}$

12. $\dfrac{25}{100}$ ◯ $\dfrac{1}{4}$

13. In a litter of kittens, $\frac{4}{12}$ are white and $\frac{2}{3}$ are tan. Are there more white or more tan kittens?

Complete the statement.

14. $\frac{2}{3} < \frac{\square}{\square}$

15. $\frac{4}{5} > \frac{\square}{\square}$

16. $\frac{7}{10} < \frac{\square}{\square}$

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17. Which statements are true?

$\frac{7}{8} \overset{?}{>} \frac{3}{2}$ $\frac{3}{6} \overset{?}{>} \frac{50}{100}$ $\frac{3}{4} \overset{?}{<} \frac{11}{12}$ $\frac{1}{5} \overset{?}{<} \frac{5}{12}$

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18. You have $\frac{5}{6}$ cup of blueberries and $\frac{2}{3}$ cup of raspberries. Do you have enough of each ingredient to make the smoothie? Explain.

Smoothie Recipe
$\frac{5}{8}$ cup of blueberries
$\frac{5}{4}$ cups of raspberries

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19. Newton and Descartes are picking cherries at a farm. Newton's bag of cherries weighs $\frac{2}{3}$ pound. Descartes's bag weighs $\frac{5}{4}$ pounds. How much money will Newton and Descartes each pay for their bag of cherries?

Cherry Prices
Less than $\frac{1}{2}$ pound: 75¢
$\frac{1}{2}$ pound – 1 pound: $1
Over 1 pound: $1.25

Name _____

Write the mixed number as a fraction.

1. $2\frac{4}{5}$

2. $1\frac{3}{4}$

3. $1\frac{1}{2}$

4. $8\frac{4}{8}$

5. $3\frac{7}{12}$

6. $10\frac{5}{9}$

Write the fraction as a mixed number or a whole number.

7. $\frac{11}{6}$

8. $\frac{9}{8}$

9. $\frac{18}{5}$

10. $\frac{24}{7}$

11. $\frac{62}{4}$

12. $\frac{90}{10}$

Compare.

13. $5\frac{4}{5}$ ◯ $\frac{32}{5}$

14. $\frac{46}{10}$ ◯ $4\frac{6}{10}$

15. $7\frac{2}{3}$ ◯ $\frac{19}{3}$

16. Complete the number line.
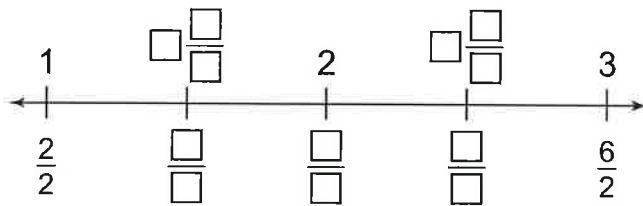
17. You need pencil lead that is $\frac{8}{5}$ millimeters thick to complete a drawing. Which size pencil lead should you use?

$1\frac{1}{5}$ mm $1\frac{3}{5}$ mm $1\frac{4}{5}$ mm

18. You have a $\frac{1}{3}$-teaspoon measuring spoon and a $\frac{1}{2}$-teaspoon measuring spoon. What are two ways you can measure $3\frac{1}{6}$ teaspoons of salt?

Name _____

Add.

1. $3\frac{1}{3} + 7\frac{1}{3} = $ _____

2. $9\frac{5}{6} + 8\frac{4}{6} = $ _____

3. $2\frac{2}{9} + 2 = $ _____

4. $6\frac{8}{12} + 12\frac{8}{12} = $ _____

5. $7\frac{4}{5} + \frac{16}{5} = $ _____

6. $8\frac{81}{100} + 4\frac{14}{100} = $ _____

7.
$$3$$
$$10\frac{5}{6}$$
$$+\, 2\frac{1}{6}$$
_____

8.
$$6\frac{1}{2}$$
$$3\frac{1}{2}$$
$$+\, 4\frac{1}{2}$$
_____

9.
$$9\frac{7}{8}$$
$$5\frac{2}{8}$$
$$+\, \frac{3}{8}$$
_____

Add.

10.
$$7\frac{1}{3}$$
$$7\frac{1}{3}$$
$$+\ 4\frac{2}{32}$$

11.
$$12\frac{3}{4}$$
$$2$$
$$+\ 8\frac{3}{4}$$

12.
$$1\frac{4}{9}$$
$$\frac{7}{9}$$
$$+\ 5\frac{3}{9}$$

13. Find $6\frac{3}{6} + 4\frac{4}{6}$ two different ways. Which way do you prefer? Why?

14. A coach has two ropes for tug-of-war. One is $8\frac{1}{4}$ yards long. The other is $12\frac{2}{4}$ yards long. She connects the ropes. How long will the tug-of-war rope be in all?

15. You are making macaroni and cheese. You use $2\frac{1}{3}$ cups of milk, $2\frac{2}{3}$ cups of shells, and $1\frac{1}{6}$ cups of white cheddar cheese. How many cups of ingredients do you use in all?

Name _____

Subtract.

1. $7\frac{2}{3} - 4\frac{1}{3} =$ _____

2. $9\frac{5}{6} - 3\frac{5}{36} =$ _____

3. $10\frac{2}{9} - 1\frac{8}{9} =$ _____

4. $6\frac{8}{100} - 4\frac{38}{100} =$ _____

5. $7\frac{3}{5} - 2\frac{4}{5} =$ _____

6. $15\frac{3}{4} - 11\frac{2}{4} =$ _____

7. $\begin{array}{r} 7\frac{9}{10} \\ -\ 5 \\ \hline \end{array}$

8. $\begin{array}{r} 28 \\ -\ 5\frac{3}{8} \\ \hline \end{array}$

9. $\begin{array}{r} 9 \\ -\ 8\frac{4}{5} \\ \hline \end{array}$

10. Explain why you rename $6\frac{3}{6}$ when finding $6\frac{3}{6} - \frac{5}{6}$.

11. Find the unknown number.

$$10\frac{7}{10} - \square\frac{\square}{\square} = \frac{9}{10}$$

---

12. Your teacher runs 30 miles to train for a marathon this summer. The marathon is $26\frac{2}{10}$ miles long. How many more miles does your teacher run during training than during the marathon?

---

13. You spend $\frac{3}{6}$ of an hour reading and $\frac{1}{6}$ of an hour cleaning your room. What fraction of an hour is left for you to play video games?

Name _____

Multiply.

1. $5 \times \frac{1}{8} =$ _____

2. $4 \times \frac{3}{4} =$ _____

3. $1 \times \frac{7}{9} =$ _____

4. $6 \times \frac{9}{10} =$ _____

5. $8 \times \frac{5}{6} =$ _____

6. $\frac{2}{8} \times 10 =$ _____

7. $7 \times \frac{7}{3} =$ _____

8. $\frac{75}{100} \times 2 =$ _____

9. $3 \times \frac{16}{4} =$ _____

10. $11 \times \frac{1}{2} =$ _____

11. $\frac{30}{8} \times 8 =$ _____

12. $4 \times \frac{1}{4} =$ _____

Compare.

13. $4 \times \frac{2}{3}$ $\bigcirc$ $12 \times \frac{1}{2}$ | **14.** $20 \times \frac{1}{4}$ $\bigcirc$ $20 \times \frac{1}{20}$ | **15.** $\frac{7}{8} \times 3$ $\bigcirc$ $6 \times \frac{4}{8}$

16. Explain one way to multiply a fraction by a whole number.

17. Between which two whole numbers does the product of 15 and $\frac{3}{4}$ lie?

18. You build a snowman that is $\frac{2}{3}$ yard tall. Your neighbor builds a snowman that is 4 times as tall as your snowman. How tall is your neighbor's snowman?

19. You earn $10 for doing chores. Newton earns $\frac{3}{5}$ as much as you earn, and Descartes earns $\frac{1}{3}$ as much as Newton. How much money do you, Newton, and Descartes earn in all?

Name _____

1. Write $\frac{3}{10}$ as a decimal.
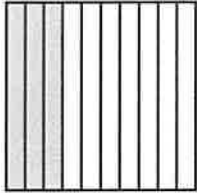
2. Shade the model to represent $1\frac{5}{10}$. Then write the mixed number as a decimal.
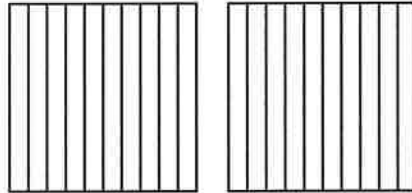
Write the fraction or mixed number as a decimal.

3. $\frac{4}{10}$	**4.** $\frac{6}{10}$	**5.** $\frac{9}{10}$	**6.** $\frac{7}{10}$
7. $5\frac{2}{10}$	**8.** $3\frac{3}{10}$	**9.** $36\frac{8}{10}$	**10.** $22\frac{1}{10}$

Write the number as a fraction or mixed number and as a decimal.

11. six tenths

12. twelve and two tenths

13. You knock down 7 out of 10 bowling pins. What portion of bowling pins do you knock down? Write your answer as a decimal.

14. You drive a go-kart around a track $5\frac{8}{10}$ times before you spin out. Write this number as a decimal.

15. Which number cards are represented by the model?
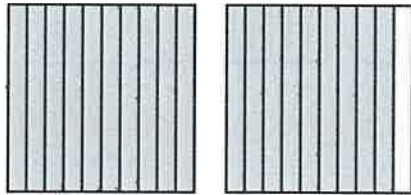
| 9.0 | $1\frac{9}{10}$ | 1.9 | 0.9 |

Use the table.

16. Your cousin orders her books by color. What portion of the books has red covers? Write your answer as a decimal.

Book Covers	
Book	**Cover Color**
Pride and Prejudice	Red
Wuthering Heights	Red
Great Expectations	Yellow
Jane Eyre	Yellow
Anna Karenina	Yellow
Of Mice and Men	Red
The Picture of Dorian Grey	Blue
To Kill a Mockingbird	Blue
1984	Red
Harry Potter and the Sorcerer's Stone	Blue

17. What portion of the books does *not* have red covers? Write your answer as a decimal.

Name _____

Draw bills and coins to solve.

1. A fruit smoothie is $4.75 and a water bottle is $1.15. How much more money is the fruit smoothie than the water bottle?

2. Descartes buys two pencil cases for a total of $3.72. Each pencil case costs the same amount. How much does each pencil case cost?

3. You buy 4 bags of the balloons shown. How much money do you spend in all?

BALLOONS $2.10
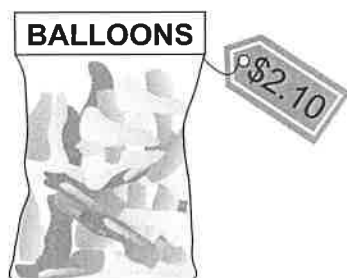
4. You have five $1 bills and 3 quarters. Do you have enough money to buy the fruit smoothie and the water bottle in Exercise 1? Explain.

5. You have 4 jars with $1.38 in each jar. Do you have enough money to buy the model car? If not, how much more money do you need?

$6.55

6. Descartes has 5 quarters, 2 dimes, and 1 nickel. He wants to put the same amount of money into each of two piggy banks. How can he do this with these coins?

7. Newton buys the notebooks shown. He pays with a $10 bill. What is his change?

$3.87

Notebook

$5.08

Notebook
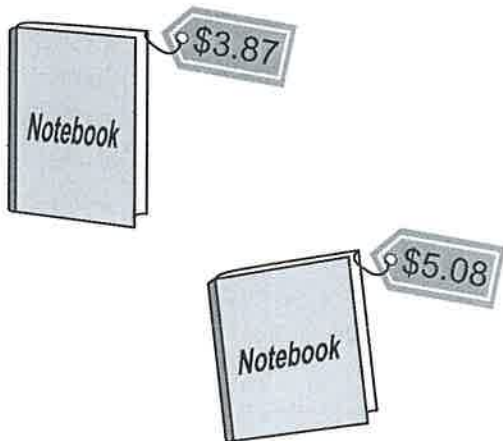
8. Your class collects pennies and nickels in separate jars. Your class collects $7.41 in pennies and $1.35 in nickels. You divide the total amount of money collected between two charities. How many pennies do you put in the nickel jar so that both jars have the same amount of money?

Name_____

Metric units of length include **millimeters**, centimeters, meters, and **kilometers**.

Metric Units of Length
1 centimeter (cm) = 10 millimeters (mm)
1 meter (m) = 100 centimeters (cm)
1 kilometer (km) = 1,000 meters (m)

Example Find the number of meters in 6 kilometers.

1 kilometer = 1,000 meters

6 × 1,000 = 6,000

So, there are 6,000 meters in 6 kilometers.

Example Find the number of millimeters in 3 meters.

1 meter = 100 centimeters
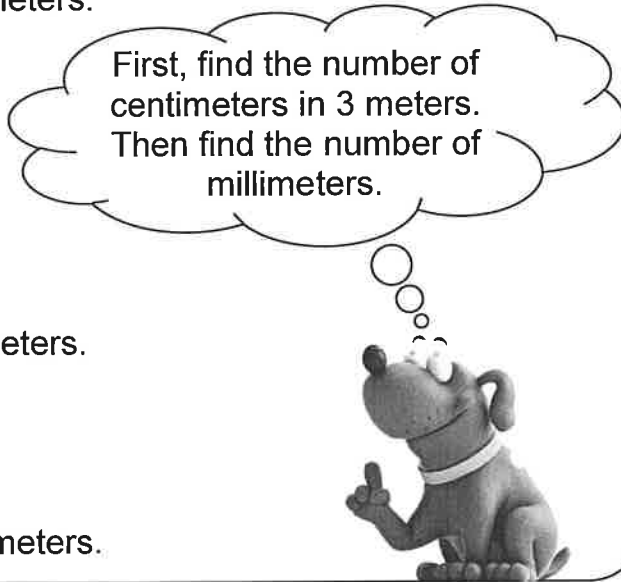
3 × 100 = 300 centimeters

So, there are 300 centimeters in 3 meters.

1 centimeter = 10 millimeters

300 × 10 = 3,000 millimeters

So, there are 3,000 millimeters in 3 meters.

First, find the number of centimeters in 3 meters. Then find the number of millimeters.

Find the equivalent length.

1. 4 m = _____ cm

2. 7 km = _____ cm

Name _____

Find the equivalent length.

1. 2 m = _____ mm   **2.** 3 km = _____ cm

3. 5 m = _____ cm   **4.** 8 m = _____ mm

5. 8 km = _____ cm   **6.** 9 km = _____ m

7. 4 km = _____ m   **8.** 7 m = _____ mm

9. 3 m = _____ mm   **10.** 9 m = _____ cm

11. A rug is 3 meters wide. How wide is the rug in centimeters?

12. A track team runs 5 kilometers. How many meters does the team run?

Name _____

Metric units of mass include grams and kilograms. ⟶

Metric Units of Mass
1 kilogram (kg) = 1,000 grams (g)

Metric units of capacity include liters and milliliters. ⟶

Metric Units of Capacity
1 liter (L) = 1,000 milliliters (mL)

Example Find the number of grams in 6 kilograms.

1 kilogram = 1,000 grams

6 × 1,000 = 6,000

So, there are 6,000 grams in 6 kilograms.

Example Find the number of milliliters in 3 liters.

1 liter = 1,000 milliliters

3 × 1,000 = 3,000

So, there are 3,000 milliliters in 3 liters.

Find the equivalent mass.

1. 2 kg = _____ g

2. 7 kg = _____ g

Find the equivalent capacity.

3. 9 L = _____ mL

4. 6 L = _____ mL

Name _____

Customary units of weight include **ounces**, **pounds**, and **tons**.

Customary Units of Weight
1 pound (lb) = 16 ounces (oz)
1 ton (T) = 2,000 pounds (lb)

Example Find the number of ounces in 2 pounds.

1 pound = 16 ounces

2 × 16 = 32

So, there are 32 ounces in 2 pounds.

Multiply the number of pounds by 16 to find how many ounces.

Multiply the number of tons by 2,000 to find how many pounds.

Example Find the number of pounds in 5 tons.

1 ton = 2,000 pounds

5 × 2,000 = 10,000

So, there are 10,000 pounds in 2 tons.

Find the equivalent weight.

1. 4 T = _____ lb

2. 8 lb = _____ oz

3. 30 lb = _____ oz

4. 2 T = _____ lb

Name _____

Units of time include **seconds**, minutes, hours, days, weeks, months, and years.

Units of Time	
1 minute (min) = 60 seconds (sec)	1 week (wk) = 7 days (d)
1 hour (hr) = 60 minutes (min)	1 year (yr) = 12 months (mo)
1 day (d) = 24 hours (hr)	1 year (yr) = 52 weeks (wk)

Example Find the number of weeks in 5 years.

1 year = 52 weeks

5 × 52 = 260

So, there are 260 weeks in 5 years.

First multiply the number of weeks by the number of days in each week.

Then multiply the number of days by the number of hours in each day.

Example Find the number of hours in 10 weeks.

Step 1:   1 week = 7 days

10 × 7 = 70 days

So, there are 70 days in 10 weeks.

Step 2:   1 day = 24 hours

70 × 24 = 1,680 hours

So, there are 1,680 hours in 10 weeks.
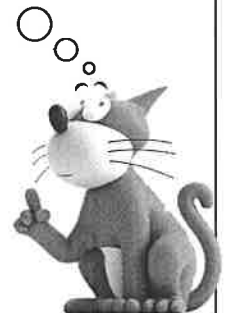
Find the equivalent amount of time.

1. 2 min = _____ sec

2. 4 d = _____ min

Name _____

Example Add 1 foot 6 inches and 4 feet 2 inches.

Add the inches first. Then add the feet.

$$\begin{array}{ll} & 1\text{ ft} & 6\text{ in.} \\ + & 4\text{ ft} & 2\text{ in.} \\ \hline & & 8\text{ in.} \end{array}$$

The sum is 5 feet 8 inches.
This is equal to 68 inches.

$$\begin{array}{ll} & 1\text{ ft} & 6\text{ in.} \\ + & 4\text{ ft} & 2\text{ in.} \\ \hline & 5\text{ ft} & 8\text{ in.} \end{array}$$

Example Subtract 2 hours 30 minutes from 6 hours 15 minutes.

Step 1: Subtract the minutes.

> 30 is greater than 15. Regroup 1 hour as 60 minutes. So, 6 hr 15 min becomes 5 hr 75 min.

$$\begin{array}{cc} & & & 5 & 75 \\ 6\text{ hr} & 15\text{ min} & \longrightarrow & \cancel{6}\text{ hr} & \cancel{15}\text{ min} \\ -2\text{ hr} & 30\text{ min} & \longrightarrow & -2\text{ hr} & 30\text{ min} \\ \hline & & & & 45\text{ min} \end{array}$$

Step 2: Subtract the hours.

$$\begin{array}{cc} 5 & 75 \\ \cancel{6}\text{ hr} & \cancel{15}\text{ min} \\ -2\text{ hr} & 30\text{ min} \\ \hline 3\text{ hr} & 45\text{ min} \end{array}$$

The difference is 3 hours 45 minutes.

Add or subtract.

1. 5 d 10 h
  $\underline{+\ 1\text{ d}\quad 2\text{ h}}$

2. 4 yr 6 mo
  $\underline{-\ 2\text{ yr}\quad 8\text{ mo}}$

3. 7 pt 1 c
  $\underline{+\ 3\text{ pt}\quad 2\text{ c}}$

Name _____

Perimeter is the distance around a figure. A **formula** is an equation that uses letters and numbers to show how quantities are related. You can use a formula to show how the length, width, and perimeter of a rectangle are related.
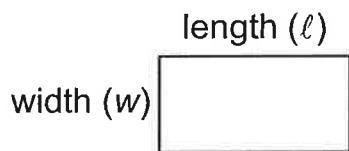
Perimeter of a Rectangle

length (ℓ)

width (w)

$$P = (2 \times \ell) + (2 \times w)$$

perimeter   length   width

Example Find the perimeter of the rectangle.

The length is 10 feet and the width is 4 feet.

10 feet

4 feet
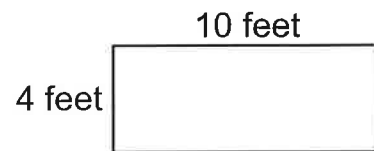
$P = (2 \times \ell) + (2 \times w)$ Formula for perimeter of a rectangle

$P = (2 \times 10) + (2 \times 4)$

$P = 20 + 8$

$P = 28$ The perimeter is 28 feet.

Find the perimeter of the rectangle.

1.   8 yd

11 yd

2.   3 cm

$9\frac{1}{2}$ cm

Name _____

Find the perimeter of the rectangle.

1.

15 cm

9 cm

2.

28 ft

12 ft

3.

11 yd

16 yd

4.

3 mm

$7\frac{3}{4}$ mm
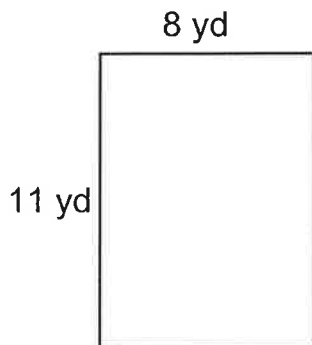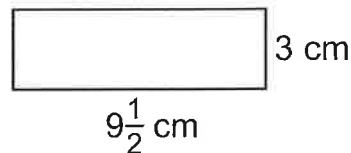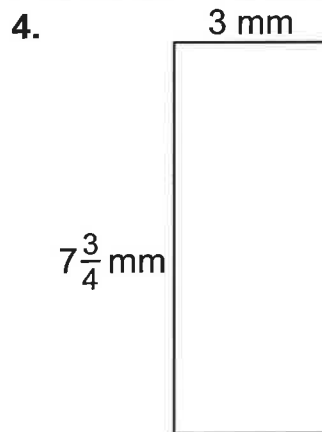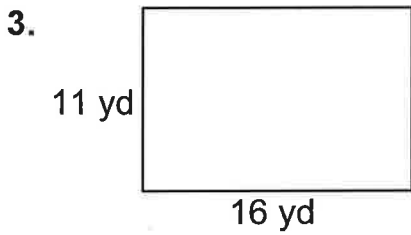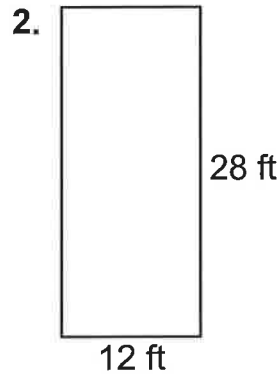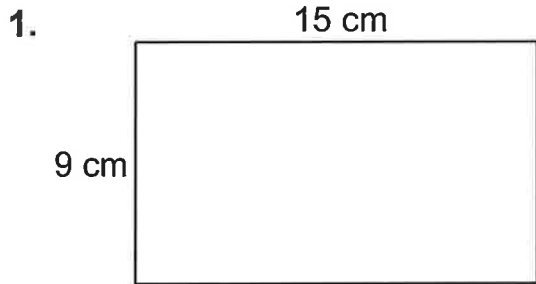
5. What is the perimeter of a square checkerboard with side lengths of 16 inches?

6. Explain why
$$(2 \times \ell) + (2 \times w) = 2(\ell + w).$$

7. Draw a rectangle that has the same perimeter as the one shown, but different dimensions.

100 mi

175 mi
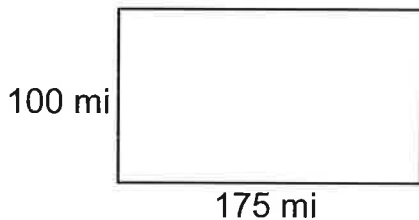
8. A gym teacher asks her students to run around a rectangular field one time. The field is 3 times longer than it is wide. How many feet do the students run?

52 ft
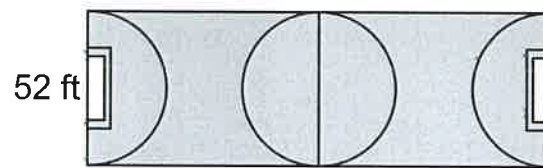
9. Your neighbor is planting bushes around the perimeter of her rectangular front yard and rectangular backyard. Which yard requires more bushes?

48 feet

31 feet

Front Yard

$40\frac{1}{2}$ feet

36 feet

Backyard

Name _____
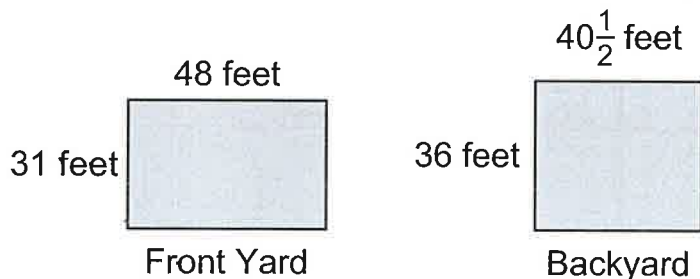
Area is the amount of surface a figure covers. You can use a formula to show how the length, width, and area of a rectangle are related.

Area of a Rectangle

length (ℓ)
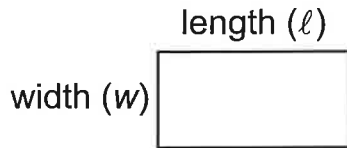
width (w) [rectangle]

$$A \;\; = \;\; \ell \;\; \times \;\; w$$

↑   ↑   ↑

area length width

Example Find the area of the rectangle.

7 mm

The length is 15 millimeters and the width is 7 millimeters.

15 mm

$A = \ell \times w$ Formula for area of a rectangle

$= 15 \times 7$
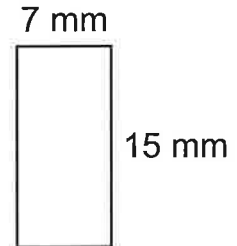
$= 105$ The area is 105 square millimeters.

Find the area of the rectangle.

1.   6 ft

3 ft

2.   12 mi

15 mi

3.   13 yd

6 yd

4. $1\frac{1}{4}$ in.

6 in.

Name _____

Find the area of the rectangle.

1. 6 in.

8 in.

2. 7 m

25 m

3.

52 cm

13 cm

4. 18 yd

$8\frac{5}{6}$ yd
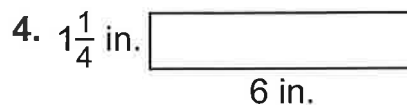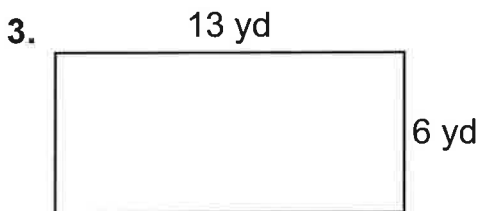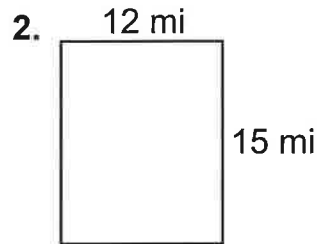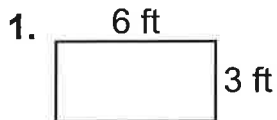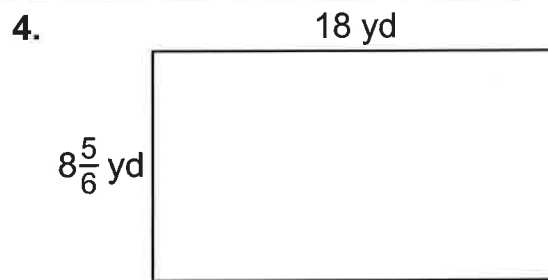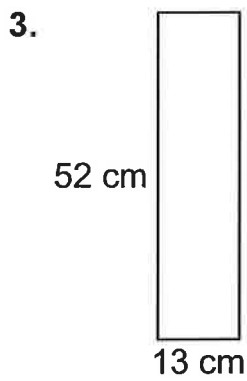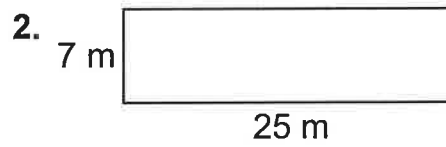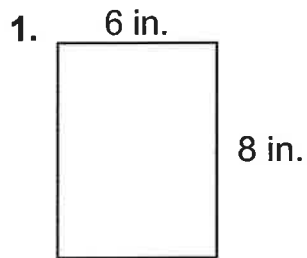
5. What is the area of the tennis court?

36 ft

78 ft
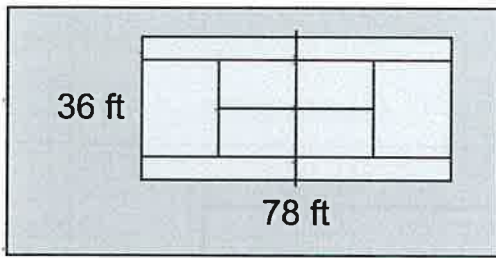
6. A rectangle has an area of 100 square yards. The dimensions are whole numbers. What are all of the possible dimensions of the rectangle?

7. Draw a rectangle that has the same area as the one shown, but different dimensions.

20 mi

80 mi
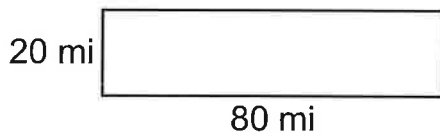
8. To efficiently wrap a rectangular birthday present, you use wrapping paper that is 6 inches longer and 9 inches wider than the present. You are wrapping a book that is 11 inches long and 8 inches wide. What is the area of the wrapping paper?

9. The koala enclosure at the zoo is 21 feet long and 9 feet wide. The sloth enclosure is 16 feet long and 11 feet wide. Which animal has a bigger enclosure? How much more area does the animal have?

Name _____

Determine whether the line is a line of symmetry.

1.
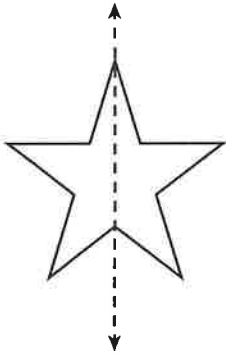
2.
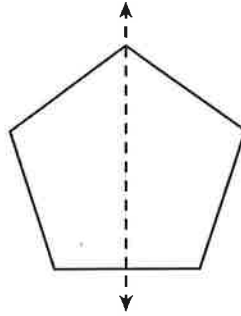
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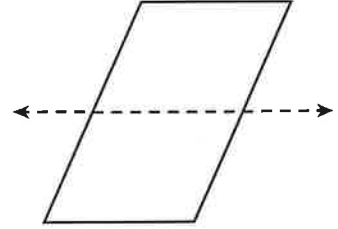
Determine whether the shape has line symmetry. Draw each line of symmetry.

4.
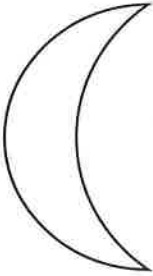
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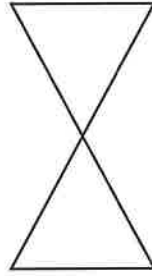
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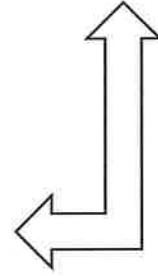
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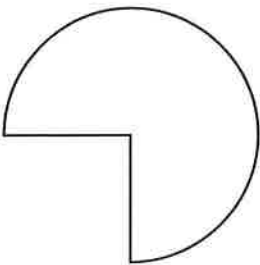
8.
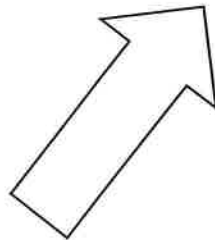
9.

10. Which figure correctly shows all the lines of symmetry of a rectangle?
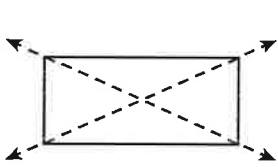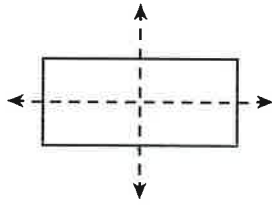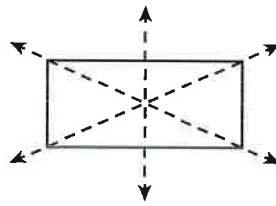
Figure 1   Figure 2   Figure 3   Figure 4
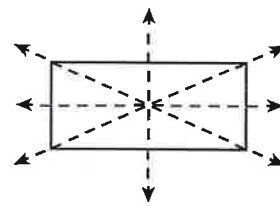
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11. Your friend says the shape has exactly five lines of symmetry. Is your friend correct? Explain.
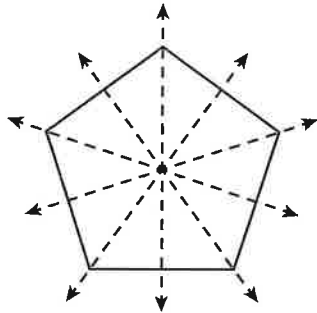
12. Divide the basketball court into multiple sections using each of its lines of symmetry. There are 8 players on the court with an equal number of players in each section. How many players are in each section?

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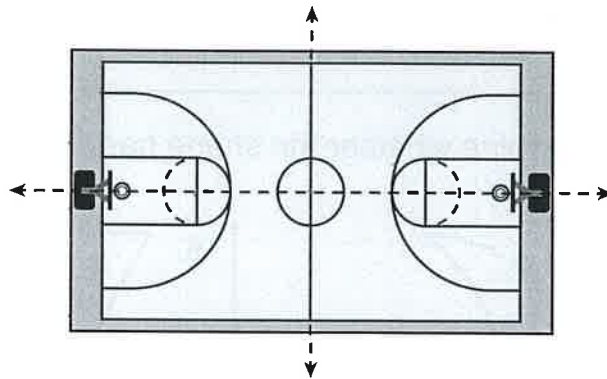
13. In art class, you are making a black-and-white art piece. Your teacher says it has to have exactly 2 lines of diagonal symmetry. Shade the square below to show what the art piece could look like.
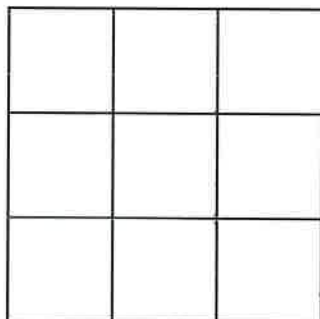
Name _____

Triangles can be classified by their sides. Tick marks on the sides of a figure mean that those sides have the same lengths.
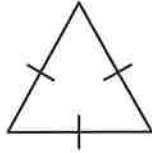
An **equilateral triangle** has three sides with the same length.

An **isosceles triangle** has two sides with the same length.
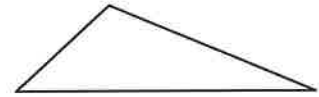
A **scalene triangle** has no sides with the same length.

Example Classify the triangle by its sides.
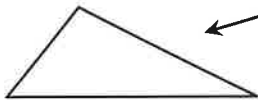
The triangle has no sides with the same length.

So, it is a scalene triangle.

Classify the triangle by its sides.

1.
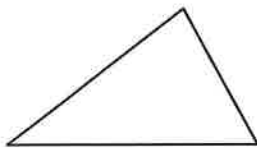
2.
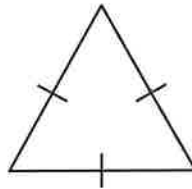
3.
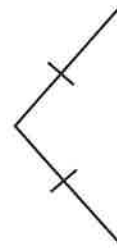
4. Use the triangular grid to draw any triangle. Classify the triangle by its sides.

Name _____
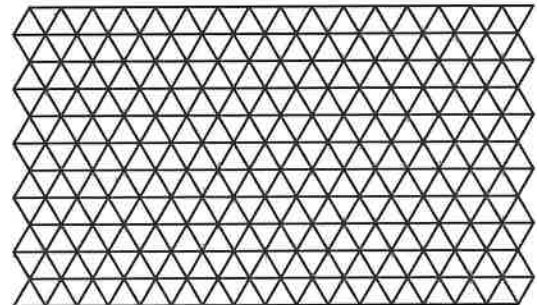
Triangles can be classified by their angles.

An **acute triangle** has three acute angles.
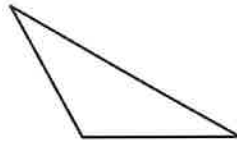
An **obtuse triangle** has one obtuse angle.
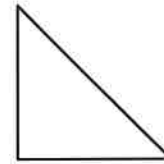
A **right triangle** has one right angle.

An **equiangular triangle** has three angles with the same measure.
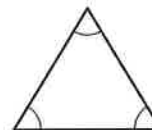
Example Classify the triangle by its angles.
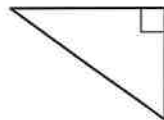
The triangle has one right angle. So, it is a right triangle.

Example Classify the triangle by its angles and sides.
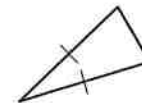
The triangle has three acute angles and two sides with the same length. So, it is an acute isosceles triangle.

1. Classify the triangle by its angles.
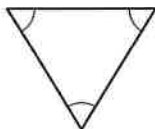
2. Classify the triangle by its angles and its sides.
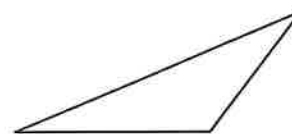
Name _____

Quadrilaterals can be classified by their angles and sides.
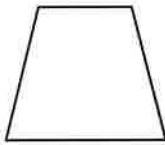
A **trapezoid** is a quadrilateral that has exactly one pair of parallel sides.
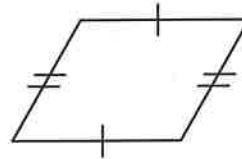
A **parallelogram** is a quadrilateral that has two pairs of parallel sides. Opposite sides have the same length.
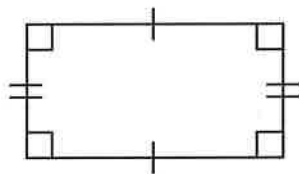
A **rectangle** is a parallelogram that has four right angles.
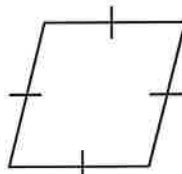
A **rhombus** is a parallelogram that has four sides with the same length.
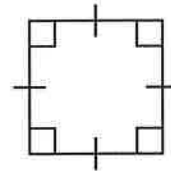
A **square** is a parallelogram that has four right angles and four sides with the same length.

Example Classify the quadrilateral in as many ways as possible.
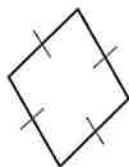
The quadrilateral has no right angles, 2 pairs of parallel sides, and 4 sides with the same length.

So, it is a rhombus and a parallelogram.

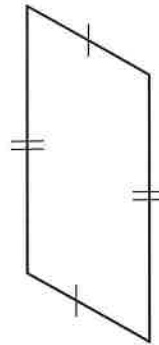Classify the quadrilateral in as many ways as possible.

1.
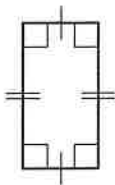
2.
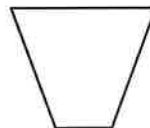
Name _____
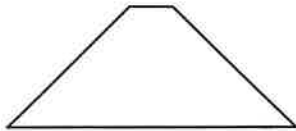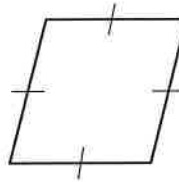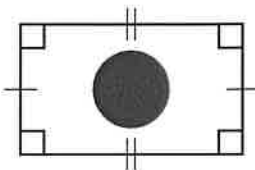
Classify the quadrilateral in as many ways as possible.
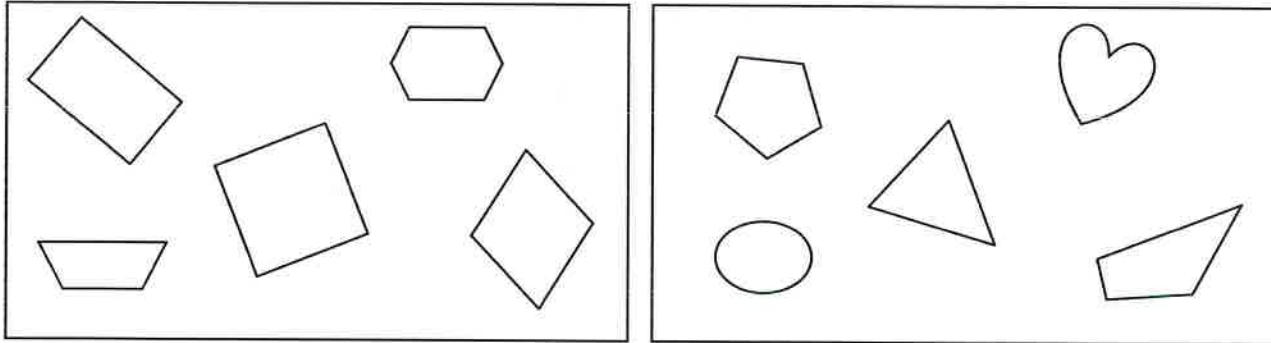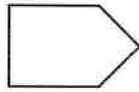
1.
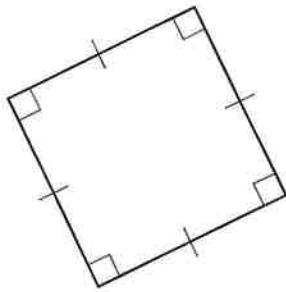
2.

3.

4.

5.

6.

7. Your friend sorts the shapes into two different groups. How do you think he sorted? Where does the shape below belong? Explain.

8. All of the sides of an equilateral triangle have the same length. All the angles of an equilateral triangle have the same measure. Is an equilateral triangle a square? Explain.

9. Within the star, trace at least two different examples of trapezoids and rhombuses. Explain how you found each quadrilateral.
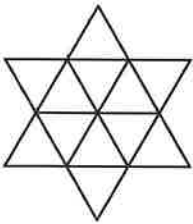
10. You and your friend each want to share an identical half of the whiteboard shown. Classify the shape of the whiteboard in as many ways as possible. Then identify and show how many different ways you and your friend can divide the whiteboard, if any.