



**Summer Learning 2018 – 6<sup>th</sup> Grade**

Dear Parents / Guardians of a Freire Charter Middle School 6<sup>th</sup> Grader -

At Freire, we believe that summer learning is very important to your students' futures. It helps to keep their academic skills sharp over the summer and it sets them up on the path for success for the upcoming school year. The Book Maps and Math Assignments will be the first grades your child receives in Quarter 1 of their 6<sup>th</sup> grade year. Both assignments will be due the first week of school.

**English Language Arts-Summer Reading Book Maps**

Your student's summer reading assignment is choice-based. Your child is required to read **2 books and complete a book map for each one (2 total book maps)**. You may use the attached book list as a guide. This list is leveled from the easiest level books to the hardest level books. It is best for children to read books that are not too hard. We use the "five finger rule" to help determine whether the book is too difficult. Please see the attached flyer for more information about this. Ultimately, we want your child reading books over the summer on their appropriate reading level, which is the best way to make them stronger readers. In this packet, you will find:

- The "Five Finger Rule" flyer and the list of suggested books
- 2 copies of the required book map. Your student needs to complete 1 map per book.

**Mathematics – Fluency**

Your student will complete three assignments – Number Lines, Number Theory, and Ratio and Ratio Language. There are notes for each topic to help your student.

In addition, the best work your student can do regarding mathematics is develop fluency. Fluency with addition, subtraction, multiplication, and division is critical. It's the ability to instantly know that  $10+4 = 14$  or that  $9 \times 6 = 54$ . Fluency will be very important for your student's success next school year. Some ideas on how to practice fluency are:

- Flash cards
- Prodigy Math. Prodigy math is a free, online math game system. Sign up for a free account at [www.prodigygame.com](http://www.prodigygame.com)
- Khan Academy. Khan Academy is a free, online math system. You can access lessons, practice problems, and more at [khanacademy.com](http://khanacademy.com)

There are five practice fluency sheets enclosed. Your student is fluent when he or she can complete one sheet in less than three minutes without any mistakes.

We are so excited to see you at the start of the school year. Please don't hesitate to reach out with any questions!

With thanks that you are our part of our dragon family,

Mr. Christopher Zagacki  
Head of School

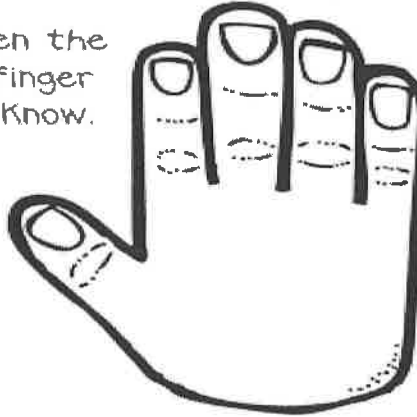
Ms. Andrea Zepp  
Head of Academic Supports

Mr. Adam Antonioli  
Assistant Head of School

# 5 FINGER RULE

What To Do: Pick a book. Open the book to any page. Put one finger up for each word you don't know.

0-1 Too Easy  
1-2 Perfect Choice  
3-4 Give It A Try  
5+ Too Hard



## Leveled Book List



The following books are listed from easy to difficult by reading levels and can be found at [www.amazon.com](http://www.amazon.com) or Barnes and Noble. Many of these authors have other books as well that may not be on this list. Books that are “just right” for your child will be the ones on their level. If you don't know your child's level, you can use the five finger rule where a child opens to the center of the book and reads aloud that page. If they struggle with the meaning or pronunciation with five or more words then you should move down a level. They should continue this five finger rule until they read a page from a book with confidence.

### **For more books, check out these resources:**

- <http://www.the-best-childrens-books.org/guided-reading-levels.html> where you can purchase new or used books
- <https://www.getepic.com/> (free website with free books on the computer)
- Take your list to your local Free Library where you can get a Philadelphia Free Library card. Your child can receive a free library card by showing one of the following: report card, working papers, school roster, school ID, or in-person parental identification.
- If you have questions or concerns about Summer Reading, please call the school and speak with Ms. Mindy: 267-670-7499 ext. 2912 or Ms. J: 267-670-7499 ext. 2913

## **Easier Books**

*Bear Shadow* by Frank Asch  
*Camp Big Paw* by Doug Cushman  
*Curious George and the Ice Cream* by Margaret Rey  
*Days with Frog and Toad* by Arnold Lobel  
*Don't Eat Too Much Turkey* by Miriam Cohen  
*The Fox Series* by Edward Marshall  
*Froggy Learns to Swim* by Jonathan London  
*Funny Bones* by Allan and Janet Ahlberg  
*Ghosts!* By Alvin Schwartz  
*Green Eggs and Ham* by Dr. Seuss

*The Henry and Mudge Series* by Cynthia Rylant  
*Mr Putter and Tabby Book Series* by Cynthia Rylant  
*Jimmy Lee Did It* by Pat Cummings  
*Little Bear Books* by Else H. Minarik  
*The Teeny Tiny Woman* by Barbara Seuling  
*There's an Alligator Under My Bed* by Mercer Mayer  
*Alison's Puppy* by Marion Dane Bauer  
*A Baby Sister for Frances* by Lillian Hoban  
*Baseball Ballerina* by Cathryn Cristaldi  
*The Best Way to Play* by Bill Cosby

*Bony-Legs* by Joanna Cole  
*The Camp Knock Knock Mystery* by Ann Douglas  
*The Case of the Cat's Meow* by Crosby Bonsall  
*Clifford, the Big Red Dog* by Norman Bridwell  
*The Commander Toad Series* by Jane Yolen  
*Four on the Shore Three by the Sea* by Edward Marshall  
*Ibis: A True Whale Story* by John Himmelman  
*If you Give a Mouse a Cookie* by Laura Numeroff  
*Madeline* by Ludwig Bemelmans  
*The Magic Box* by Barbara Brenner  
*Molly the Brave and Me* by Jane O'Connor  
*The Nate the Great Series* by Weinman M Sharmat

*Ruby the Copycat* by Peggy Rathman  
*Soccer Cousins* by Jean Marzollo  
*Space Rock* by Jon Buller  
*Treasure of the Lost Lagoon* by Geoffrey Hayes  
*The Amelia Bedilia Series* by Peggy Parish  
*Animal Tracks* by Arthur Dorros  
*The Cam Jansen Series* by David Adler  
*The Case of the Cool-Itch Kid* by Patricia Reilly Giff  
*The Horrible Harry Series* by Suzy Kline  
*The Marvin Redpost Series* by Louis Sacher  
*The Pinky and Rex Series* by James Howe  
*The Pee Wee Scouts Series* by Judy Delton

## Medium Books

*The Arthur Series* by Marc Brown  
*Beast and the Halloween Horror* by Patricia Reilly Giff  
*Baseball Pals* by Matt Christopher  
*The June B Jones Series* by Barbara Park  
*Five True Dog Stories* by Margaret Davidson  
*The Magic Treehouse Series* by Mary Pope Osborne  
*Hoopstars; Go to the Hoop!* By Dean Hughes  
*The Amber Brown Series* by Paula Danziger  
*The Cloud Book* by Tomie DePaola  
*The Enormous Crocodile* by Roald Dahl  
*Julian, Dream Doctor* by Ann Cameron  
*Flat Stanley* by Jeff Brown  
*The Max Malone Series* by Charlotte Herman  
*The Titanic* by Judy Donnelly  
*Bugs* by N Parker and R Wright  
*Chocolate Fever* by Robert Smith  
*Class Clown* by Johanna Hurwitz

*I Wonder Why the Snakes Shed Their Skins* by Amanda O'Neill  
*The Herbie Jones Series* by Suzy Kline  
*Ramona the Brave* by Beverly Cleary  
*A Pony for Keeps* by Jeanne Betancourt  
*Dolphin Adventure* by Wayne Grover  
*Dragon Quest* by Jackie French Koller  
*The Encyclopedia Brown Series* by Donald and Rose Sobol  
*The Magic School Bus Series* by Joanna Cole and Bruce Degen  
*One Day in the Tropical Rain Forest* by Jean Craighead George  
*Book of Black Heroes from A to Z* by W Hudson and VW Wesley  
*Going for Gold! Eyewitness Readers*  
*The Time Warp Trio Series* by Jon Scieszka

## Harder Books

*The Anatasia Book Series* by Lois Lowry  
*Bunnacula* by James Howe  
*The American Girls Book Series*  
*Finding the Titanic* by Robert D Ballard  
*The Little House on the Prairie Series* by Laura Ingalls Wilder  
*Outside and Inside Sharks* by Sandra Markle  
*Tales of a Fourth Grade Nothing* by Judy Blume

*Help! I'm Trapped in My Teacher's Body* by Todd Strasser  
*James and the Giant Peach* by Roald Dahl  
*There's a Boy in the Girls' Bathroom* by Louis Sacher  
*The True Story of the Three Little Pigs* by Jon Scieszka  
*Babe the Gallant Pig* by Dick King-Smith

*A Book about Planet and Stars* by Betty Polisar Reigot  
*Brendan the Navigator* by Jean Fritz  
*The Celery Stalks at Midnight* by James Howe  
*Dog Years* by Sally Warner  
*Foul Play on the Sidelines* by Emily Costello  
*How to Eat Fried Worms* by Thomas Rockwell  
*The Indian in the Cupboard* by Lynne Reid Banks  
*Mummies Made in Egypt* by Alike  
*No More Magic* by Avi  
*The Story of Thomas Alva Edison, Inventor* by Margaret Davidson  
*Strider* by Beverly Cleary  
*Stuart Little* by EB White  
*Weather Words and What They Mean* by Gail Gibbons  
*The Baby-Sitter Burglaries* by Carolyn Keene  
*Boys Against Girls* by Phylis Reynolds Naylor  
*Eagle Song* by Joseph Bruchac  
*Matilda* by Roald Dahl  
*My Teacher Fried My Brains* by Bruce Coville  
*Sideways Arithmetic from Wayside School* by Louis Sachar  
*Samuel's Choice* by Richard Berleth  
*The War With Grandpa* by Robert Kimmel Smith  
*True Confessions* by Janet Tashjian  
*Abel's Island* by William Steig  
*A Ballad of the Civil War* by Stolz  
*The Black Stallion* by Walter Farley  
*Blubber* by Judy Blume

*But I'll be Back Again* by Cynthia Rylant  
*Cracker Jackson* by Betsy Byars  
*Harriet the Spy* by Louise Fitzhugh  
*The Harry Potter Series* by JK Rowling  
*Jackie and Me* by Gutman  
*Joey Pigza Loses Control* by Gantos  
*The Lion the Witch and the Wardrobe* by CS Lewis  
*My Life as a Fifth-Grade Comedian* by Levy  
*The Power of Un* by Etchemendy  
*Souder* by Armstrong  
*The Titanic* by Kent  
*The Wish Giver* by Bill Brittain  
*Baseball in April and Other Stories* by Gary Soto  
*The BFG* by Roald Dahl  
*Bridge to Terabithia* by Katherine Patterson  
*The Cat Ate my Gymsuit* by Paula Danziger  
*Julie of the Wolves Series* by Jean Craighead George  
*Number the Stars* by Lois Lowry  
*The Real Thief* by William Steig  
*Wringer* by Jerry Spinelli  
*The Secret Garden* by Frances H Burnett  
*Summer of the Swans* by Betsy Byars  
*The View from Saturday* by EL Konigsburg  
*Tuck Everlasting* by Natalia Babbitt  
*The Winter Room* by Gary Paulsen  
*The Egypt Game* by Snyder  
*Ella Enchanted* by Levine

Name: \_\_\_\_\_

# 6<sup>th</sup> Grade Book Map #1

What is the setting?

Who are the important characters?

What is the problem in the story?

\*What is the plot? Sequence of events inside the story that affect other events

What is the solution to the problem?

title

How else could the problem have been solved?

\*What is the theme? Meaning behind the story or moral of the story - as known as the lesson

Name: \_\_\_\_\_

# 6<sup>th</sup> Grade Book Map #2

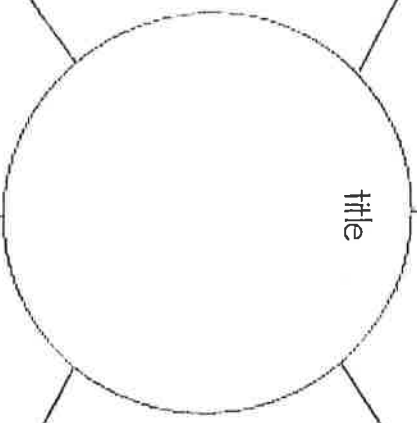
What is the setting?

Who are the important characters?

What is problem in the story?

What is the solution to the problem?

\*What is the plot? Sequence of events inside the story that affect other events



How else could the problem have been solved?

\*What is the theme? meaning behind the story or moral of the story - as known as the lesson

# Number Theory

## **Factors**

*the numbers multiplied together to get another number*

## **Greatest Common Factor (GCF)**

*the largest number that is a common factor of two or more numbers*

## **Prime Factorization**

*the expression of a positive integer as a product of prime numbers*

1  
 2  
 3  
 4

### **Example**

What is the greatest common factor (GCF) of 20 and 30?

### **Solution**

Find the prime factorization of each number.

$$20 = 2 \times 2 \times 5 = 2^2 \times 5^1$$

$$30 = 2 \times 3 \times 5 = 2^1 \times 3^1 \times 5^1$$

To find the greatest common factor, multiply together the highest power of each prime that both numbers share.

The highest power of 2 that both 20 and 30 share is 1.

The highest power of 5 that both 20 and 30 share is 1.

So, the GCF is  $2^1 \times 5^1 = 10$ .

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# Number Theory

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**Least Common Multiple (LCM)** is the smallest number that is a multiple of two or more numbers.

## Example:

What is the least common multiple (LCM) of 12 and 10?

## Solution:

List the multiples of 12 and 10 until there is one in common.

$$12 = 12, 24, 36, 48, 60$$

$$10 = 10, 20, 30, 40, 50, 60$$

So, the LCM is **60**.

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# Distributive Property - Common Factor

## *Distributive Property*

$$a(b + c) = (a \times b) + (a \times c)$$

The **common factor** in the example above is **a**.

### **Example 1:**

Use the distributive property and a common factor to find an expression equivalent to the one below.

$$35 + 40$$

### **Solution:**

The greatest common factor for 35 and 40 is 5, so factor out a 5. The equivalent expression is shown below.

$$5(7 + 8)$$

### **Example 2:**

Use the distributive property and a common factor to find an expression equivalent to the one below.

$$88 + 99$$

### **Solution:**

The greatest common factor for 88 and 99 is 11, so factor out an 11. The equivalent expression is shown below.

$$11(8 + 9)$$

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# Number Theory

## Question 1 .

What is the greatest common factor (GCF) of 60 and 84?

- A. 6
- B. 420
- C. 12
- D. 840

## Question 2 .

What is the greatest common factor (GCF) of 64 and 48?

- A. 64
- B. 8
- C. 192
- D. 16

## Question 3 .

What is the least common multiple (LCM) of 6 and 10?

- A. 20
- B. 30
- C. 2
- D. 60

## Question 4 .

What is the least common multiple (LCM) of 3 and 5?

- A. 30
- B. 15
- C. 10
- D. 8

**Question 5 .**

Which of the following is equal to the expression listed below?

$$27 + 36$$

- A.  $9 + (3 \times 4)$
- B.  $(9 \times 3)(9 \times 4)$
- C.  $(9 + 3)(9 + 4)$
- D.  $9(3 + 4)$

**Question 6 .**

Which of the following is equal to the expression listed below?

$$25 + 10$$

- A.  $5(5 + 2)$
- B.  $(5 + 5)(5 + 2)$
- C.  $5 + (5 \times 2)$
- D.  $(5 \times 5)(5 \times 2)$

**Question 7 .**

What is the greatest common factor (GCF) of 28 and 70?

- A. 12
- B. 7
- C. 140
- D. 14

Question 8 .

Wnt

Directions: Drag the tiles to the correct boxes to complete the pairs. Not all tiles will be used.

Mr. Kent is making prize bags for a party using two types of items. He has soft candies, hard candies, mini pencils, mini pens, chocolate coins, and mini puzzles that he can choose from to make these prize bags. Whichever two items he chooses, he wants to put in each bag the same number of the first item and the same number of the second item, so that all of the items of each type will be used.

Looking at the pairings below, determine what is the maximum number of bags that Mr. Kent will make with those items.

3 prize bags   2 prize bags   4 prize bags   9 prize bags   8 prize bags  
6 prize bags

6 soft candies   ← →  
18 mini pencils

9 mini pens   ← →  
15 mini puzzles

8 chocolate coins   ← →  
12 hard candies

Question 9 .

What is the least common multiple (LCM) of 7 and 9?

- A. 56
- B. 16
- C. 63
- D. 120

Question 10 .

What is the least common multiple (LCM) of 3 and 7?

- A. 6
- B. 42
- C. 21
- D. 10

# Ratios and Ratio Language

A ratio represents a comparison between two values.

A ratio of "a to b" can be written in the following ways.

a to b

a:b

$\frac{a}{b}$

## Example 1:

Melissa has a candy jar filled with some chocolate candies and some mint drops. There are 15 chocolates and 20 mints.

What is the ratio of chocolate candies to mint drops?

### Solution:

Rewrite the information in ratio form.

15 to 20, or 15:20, or  $\frac{15}{20}$

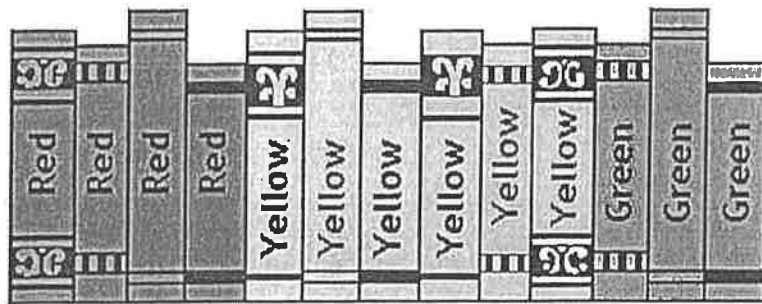
These ratios could also be written in simplified form, by dividing all values by 5.

3 to 4, or 3:4, or  $\frac{3}{4}$

## Example 2:

What is the ratio of green books to red books?

*the order matters*



### Solution:

Since there are 3 green books and 4 red books, the ratio of green books to red books is 3 to 4. or  $3:4$  or  $\frac{3}{4}$

# Ratios and Ratio Language

## Question 1 .

Susie has a bag with 8 hair pins, 6 pencils, 3 snacks, and 5 books. What is the ratio of books to pencils?

- A.  $\frac{6}{5}$
- B.  $\frac{100}{5}$
- C.  $\frac{10}{5}$
- D.  $\frac{10}{5}$

## Question 2 .

Juan plays little league baseball. In 30 at-bats, he had 10 hits. What is the ratio of at-bats to hits?

- A. 1:10
- B. 1:3
- C. 3:1
- D. 10:1

$\frac{30}{10} = \underline{\quad}$  in simplified form.

## Question 3 .

In Krissy's collection, there are 25 action movies and 35 comedies. What is the ratio of comedies to action movies in Krissy's collection?

- A. 1:25
- B. 7:5
- C. 5:7
- D. 25:1

$\frac{35}{25} = \frac{\underline{\quad}}{\underline{\quad}}$  in simplified form

## Question 4 .

At an ice skating rink, there are 33 people who know how to ice skate and 27 people who do not know how to ice skate. What is the ratio of people who know how to ice skate to people who do not know how to ice skate?

- A. 11:9
- B. 9:11
- C. 1:33
- D. 33:1

The order matters. The answer will be in simplified form.

Question 5 .

Directions: Select the correct answer from the drop-down menu.

Complete the statement.

Stephanie is a goalie on her soccer team, which means she tries to block any shots her opponents take on goal. During a tournament, she blocked 15 shots but allowed 4 goals.

For every goal Stephanie allowed, she blocked nearly  $\nabla$  shots.

$4 \text{ : } 15$  is similar to  
 $1 \text{ : } \underline{\quad}$

Question 6 .

Blake has a garden in his backyard. He picked 55 tomatoes from 5 tomato plants. What is the ratio of tomato plants to tomatoes picked?

*in simplified form*

- A. 1:11
- B. 5:1
- C. 1:5
- D. 11:1

Question 7 .

Ricardo has a bag of mixed fruit snacks. In the bag, there are 10 cherry fruit snacks and 15 strawberry fruit snacks. What is the ratio of strawberry to cherry?

*in simplified form.*

- A. 10:1
- B. 3:2
- C. 1:10
- D. 2:3

Question 8 .

Winona's grandmother always keeps her refrigerator stocked with sodas. In the refrigerator, there are 18 regular sodas and 10 diet sodas. What is the ratio of diet sodas to regular sodas in the refrigerator?

*in simplified form!*

- A. 18:1
- B. 5:9
- C. 1:18
- D. 9:5

Question 9 .

Eliza is a chef at a restaurant. She is making spaghetti sauce and put 14 tomatoes and 4 onions in the pot. What is the ratio of tomatoes to onions in the pot?

*in simplified form*

- A. 7:2
- B. 2:7
- C. 1:4
- D. 4:1

Question 10 .

On the Jackals baseball team, there are 24 right-handed players and 6 left-handed players. What is the ratio of right-handed players to left-handed players?

*in simplified form*

A.  $\frac{1}{5}$

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

C.  $\frac{5}{1}$

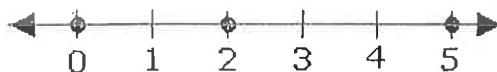
D.  $\frac{1}{4}$



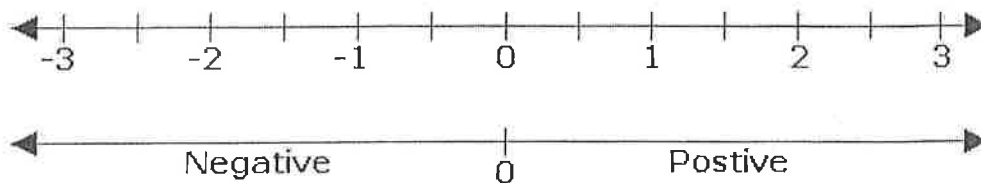
# Number Lines

A **number line** is a line representing the set of all real numbers.

Number lines are typically marked showing integer values with smaller numbers on the left and larger numbers on the right.



On a number line, all numbers to the right of zero are positive, and all the numbers to the left of zero are negative.

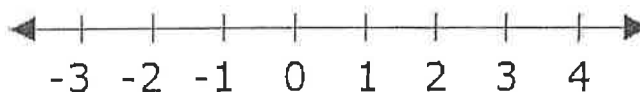


**Fraction** and **decimal** values can also be marked and/or determined on a number line.

## Opposite Numbers

### Example 1:

What is the opposite of 2?



### Solution:

The opposite of a number is the number that is the same distance from 0 on the number line, but in the opposite direction.

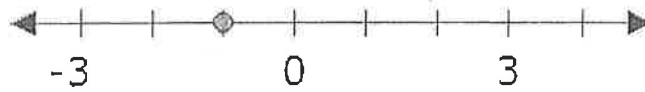
Since 2 is 2 units to the right of 0, the only number that is the same distance from 0 is the number that is 2 units to the left of 0.

So, the opposite of 2 is **-2**.

## Integers

### Example 2:

What value does the red dot represent on the number line?



**Solution:**

On this number line, each tick mark is a whole number. The red dot is 1 tick mark to the left of 0.

Moving to the right, the numbers increase. Moving to the left, the numbers decrease.

So, the red dot represents **-1**.

## Fractions

**Example 3:**

What value does the red dot represent on the number line?



**Solution:**

The numbers given on the number line are consecutive whole numbers.

The red dot is between 2 and 3. There are two equal parts between each number, so each tick mark represents  $\frac{1}{2}$ .

The red dot is halfway between 2 and 3, so the red dot represents  $2\frac{1}{2}$ .

## Decimals

**Example 4:**

What value does the red dot represent on the number line?



**Solution:**

The numbers given on the number line are consecutive integers.

The red dot is between -1 and 0. There are four equal parts between each number, so each tick mark represents one-fourth (or 0.25).

The red dot is on the third tick mark to the left of 0, so the red dot represents negative three-fourths, or -0.75.

# Number Lines

Question 1.

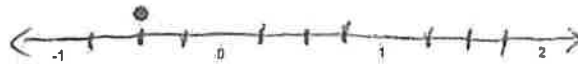
Put each letter above it's approximate location.  
~~Directions: Drag each description to the correct location on the number line.~~

Identify where each value of the descriptions would be placed on a number line in relation to zero.

- |          |                                     |          |  |          |   |
|----------|-------------------------------------|----------|--|----------|---|
| <b>A</b> | a temperature 50 degrees below zero | <b>C</b> | an elevation of 250 feet below sea level | <b>E</b> | a deposit of \$5 into a bank account      |
| <b>B</b> | a temperature 75 degrees above zero | <b>D</b> | an elevation 80 feet below sea level     | <b>F</b> | a withdrawal of \$300 from a bank account |



Question 2.



At what position on the number line is the red dot located?

- A. 0.25
- B. -0.5
- C. -0.75
- D. -0.25

## Question 3 .



What value does the red dot represent on the number line?

- A.  $\frac{4}{5}$
- B.  $\frac{2}{5}$
- C.  $\frac{4}{1}$
- D.  $\frac{2}{1}$

## Question 4 .

What is the opposite of 0?

- A. 1
- B. 2
- C. -1
- D. 0

## Question 5 .



Which of the following best represents the point above?

- A. 5.2
- B. 4.8
- C. 4.7
- D. 5.3

## Question 6 .

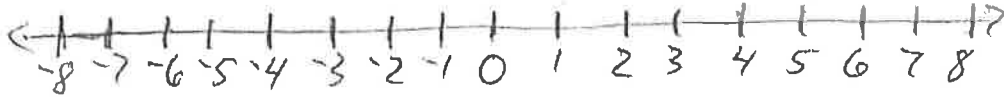
**Directions: Select the correct location on the number line.**

Shirley is making a map of Main Street, which runs west to east through town. She used the number line shown, where each unit on the number line represents a block of main street and town hall was placed at zero.

After walking Main Street, she noted the following statements in her notebook. The flower boutique is five blocks west of the pet store. The pet store is four blocks east of the bank. The bank is eight blocks west of the hardware store. The hardware store is three blocks east of the bookstore. The bookstore is two blocks east of town hall.

Shirley also made a note to place an empty store in the opposite location of the bank on the number line.

Where should Shirley plot the empty store?



## Question 7 .

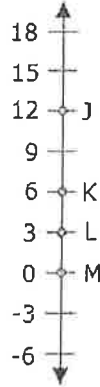


What number does the red dot represent on the number line above?

- A. 83,714
- B. 83,710
- C. 83,712
- D. 83,711

**Question 8 .**

Which letter represents the opposite of -6 on the number line below?



- A. L
- B. K
- C. J
- D. M

**Question 9 .**

What is the opposite of -0.1?

- A. -0.2
- B. 0.2
- C. 0
- D. 0.1

**Question 10 .**

At what position on the number line is the red dot located?

- A. 20.25
- B. 19.5
- C. 19.25
- D. 18.75

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

Mixed Problems 3 Minute Drill

$$\begin{array}{r} 18 \\ \div 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ \div 8 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 28 \\ \div 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \div 1 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ \div 6 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \div 2 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ \div 8 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 24 \\ \div 8 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 49 \\ \div 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ \div 4 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 1 \\ \hline \end{array}$$

Fluency is completing All problems  
in less than 3 minutes with 100% accuracy

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Mixed Problems 3 Minute Drill

$$\begin{array}{r} 3 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 24 \\ \div 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \div 2 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \div 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \div 2 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 9 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \div 1 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \div 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 81 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 35 \\ \div 7 \\ \hline \end{array}$$

$$\begin{array}{r} 100 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \div 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 63 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 54 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ \div 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 10 \\ \hline \end{array}$$

Fluency is completing all problems in less than 3 minutes with 100% accuracy.



Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Mixed Problems 3 Minute Drill

$$\begin{array}{r} 3 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ \div 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \div 6 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \div 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ \div 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ \div 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 90 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ \div 8 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 6 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ + 1 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 90 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ + 1 \\ \hline \end{array}$$

Fluency is completing all problems in less than 3 minutes with 100% accuracy.

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

Mixed Problems 3 Minute Drill

$$\begin{array}{r} 9 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 16 \\ \div 8 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 7 \\ \hline \end{array}$$

$$\begin{array}{r} 24 \\ \div 8 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 60 \\ \div 6 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 24 \\ \div 3 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ \div 8 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ - 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ \div 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 56 \\ \div 8 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 72 \\ \div 8 \\ \hline \end{array}$$

Fluency is completing All problems in less than 3 minutes with 100% accuracy.

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Mixed Problems 3 Minute Drill

$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 5 \\ \hline \end{array}$$

$$\begin{array}{r} 90 \\ \div 10 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ - 4 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \div 9 \\ \hline \end{array}$$

$$\begin{array}{r} 16 \\ \div 2 \\ \hline \end{array}$$

$$\begin{array}{r} 48 \\ \div 8 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 10 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 32 \\ \div 4 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 14 \\ \div 7 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ + 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 49 \\ \div 7 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \div 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \div 1 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ + 9 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ - 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 8 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ - 2 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ \div 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \div 3 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ + 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \div 3 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \div 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ - 1 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

Fluency is completing All problems in less than 3 minutes with 100% accuracy.