

Hello Families!

Here is a document of a review of all the math skills we have worked on so far in third grade. Please feel free to use this as a review tool- please feel free to change the numbers to create some problems of your own 😊

### September: Rounding

**Markus has 72 baseball cards. About how many baseball cards does he have to the nearest 10?**

Remember: find your benchmark numbers first: 72 is between 70 and 80. Then draw a number line from 70 to 80. Plot 72 on the number line and see which benchmark number it is closest to.

Suzu picked 15 flowers at recess. About how many flowers did she pick to the nearest 10?

Round 678 to the nearest *ten*. \_\_\_\_\_

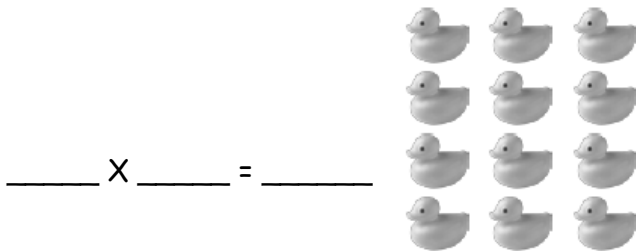
Round 813 to the nearest *ten*. \_\_\_\_\_

Round 776 to the nearest *hundred*. \_\_\_\_\_

Round 188 to the nearest *hundred*. \_\_\_\_\_

### September: multiplication as arrays or repeated addition

1. Write a multiplication sentence to match the array:



### September: division using fair share

$$15 \div 5 = \text{○} \begin{array}{c} \triangle \\ \triangle \\ \triangle \end{array} \text{○} \begin{array}{c} \triangle \\ \triangle \\ \triangle \end{array} \text{○} \begin{array}{c} \triangle \\ \triangle \\ \triangle \end{array} \text{○} \begin{array}{c} \triangle \\ \triangle \\ \triangle \end{array} \text{○} \begin{array}{c} \triangle \\ \triangle \\ \triangle \end{array} \text{○}$$

"I need to put 15 total things into my 5 groups" You need to draw 5 groups and share in each one until you get to 15.

$$24 \div 4 =$$

$$32 \div 8 =$$

## October: Multiply by multiples of 10

**\*\*Remember to drop the 0, multiply, then pop the zero back on!**

$$6 \times 30$$

$$2 \times 90$$

$$50 \times 7$$

## October: Multiplication and Division word problems

There are 27 cars in a parking lot. The cars are arranged in 3 equal rows. How many cars are in each row?

Tammy has 6 vases of tulips. There are 9 tulips in each vase. What is the total number of tulips in the vases?

Jenna has 54 stickers to put in a book. Each full page holds 9 stickers. How many pages can Jenna fill with stickers?

George has 14 erasers. He sorts them into 7 equal groups. How many will be in each group?

There are a total of 28 t-shirts split in 4 boxes. Each box has the same number of t-shirts in it. How many t-shirts are in each box?

Vonda has 9 cans of tennis balls. Each can has 3 tennis balls. How many tennis balls does Vonda have?

There are 40 children on 5 basketball teams. There is an equal number of children on each team. How many children are on each team?

Mrs. Brown has 4 packages of whistles. There are 8 whistles in each package. How many whistles does Mrs. Brown have?

## October: Solve equations for the unknown

### #1 Multiplication/Division Fact Families

\*\*\*Points to remember\*\*\*

-In multiplication sentences, the largest number is ALWAYS at the back (last)

-In division sentences, the largest number is ALWAYS at the front (first)

-The other numbers in the sentences are interchangeable!

Ex: 4,6,24

M-  $4 \times 6 = 24$

M-  $6 \times 4 = 24$

D-  $24 \div 4 = 6$

D-  $24 \div 6 = 4$

### #2

Fact Families help us when solving for UNKNOWNNS.

$3 \times J = 27$

Let's make a Fact Family and get the unknown on the other side of the equal sign!

M-  $3 \times J = 27$

M-  $J \times 3 = 27$

D-  $27 \div J = 3$

D-  $27 \div 3 = J$

Find the unknown  $4 \times r = 24$

Find the unknown:  $T \times 5 = 35$

Find the unknown:  $32 \div \triangle = 8$

Find the unknown:  $18 \div G = 2$

## November: properties of multiplication:

The associative property examples below:

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

$$15 \times 2 = 30 \quad \text{OR} \quad 3 \times 10 = 30$$

$$4 \times 2 \times 3 = 24$$

$$8 \times 3 = 24 \quad \text{OR} \quad 4 \times 6 = 24$$

$$5 \times 2 \times 3 \underline{\hspace{2cm}}$$

$$5 \times 4 \times 5 \underline{\hspace{2cm}}$$

$$3 \times 6 \times 2 \underline{\hspace{2cm}}$$

Distributive property examples below:

$3 \times 17$  can be solved by breaking the 17 down into a 10 and a 7.  
 $(3 \times 10) + (3 \times 7)$

$4 \times 9$  can be solved by decomposing the 9 (4+5)  
 $(4 \times 4) + (4 \times 5)$   
 $16 + 20 = 36$

Which equation is equal to  $6 \times 4$ ?

- a.  $(2 \times 3) + (3 \times 5)$
- b.  $(2 \times 4) + (4 \times 4)$
- c.  $(3 \times 3) + (2 \times 4)$

Which equation is equal to  $4 \times 12$ ?

- a.  $(4 \times 10) + (4 \times 2)$
- b.  $(6 \times 5) + (3 \times 5)$
- c.  $(4 \times 8) + (2 \times 10)$

Which equation is equal to  $4 \times 23$ ?

- a.  $(8 \times 9) + (4 \times 2)$
- b.  $(4 \times 20) + (4 \times 3)$
- c.  $(6 \times 9) + (5 \times 5)$

### November: determining patterns

Which rule can be used to create the following list of numbers?

108, 120, 132, 144, 156, 168

- a. Add 11
- b. Add 12
- c. Add 60
- d. Add 100

What rule is used to make the pattern below?

86, 78, 70, 62, 54, 46

- a. Add 8 each time
- b. Subtract 8 each time
- c. Multiply by 8 each time
- d. Divide by 8 each time

What rule is used to make the pattern below?

11, 22, 33, 44, 55, 66

- a. Add 11 each time
- b. Subtract 11 each time
- c. Multiply by 11 each time
- d. Divide by 11 each time

Which equation can be used to find the value of  $M$  in the table below?

Input	Output
3	9
4	12
5	15
6	$M$
7	21

- a.  $6 \times 3$
- b.  $6 + 3$
- c.  $6 \times 7$

Which equation can be used to find the value of  $K$  in the table below?

Input	Output
6	12
7	14
8	16
9	$K$
10	20

- a.  $9 + 2$
- b.  $9 \times 2$
- c.  $9 + 6$

### November: Two-Step word problems

Two friends buy grapes. The grapes come in clusters of 9. John buys 3 clusters and Joe buys 4 clusters. How many grapes did they buy altogether?

Mika has 2 boxes of markers. Davis has 4 boxes of markers. Each box has 8 markers in it. How many total markers do they have?

Miles has 4 butterflies. Ivy has 3 times as many butterflies as Miles. Gail has 27 butterflies. How many more butterflies does Gail have than Ivy?

Lee has 18 baseball cards in his desk, 5 at home and 6 in his book bag. Daniel has 37 baseball cards. How many more baseball cards does Daniel have than Lee?

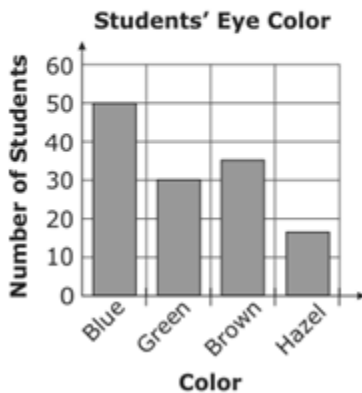
Jesse has five times as many marbles as Tripp. When Tripp buys 3 more marbles, he will have 12. How many marbles does Jesse have?

- a. 45
- b. 30
- c. 23

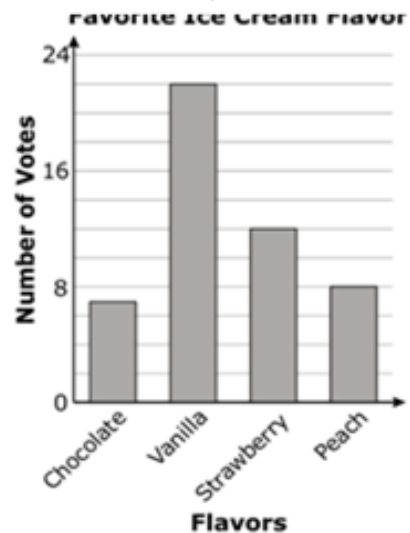
Kim and Cheryl sold bags of bubblegum. Each bag had 6 pieces of gum. Kim sold 3 bags, Cheryl sold 5 bags. What is the total number of bubble gum pieces Kim and Cheryl sold?

### December: picture graphs, bar graphs and line plots

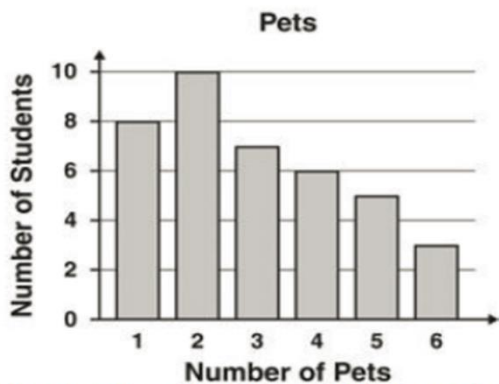
Mrs. Hill's science class collected data about the color of the students' eyes in third grade. The students then created the bar graph below.



How many more students like vanilla than strawberry?

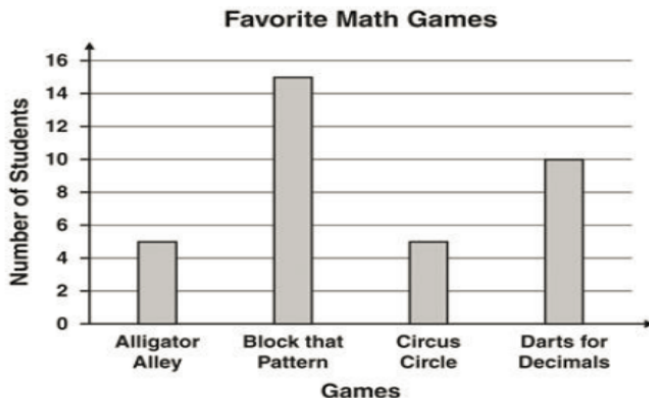






Based on the graph, how many students own 4 or more pets?

- A. 5
- B. 6
- C. 8
- D. 14



How many more students like Darts for Decimals than Alligator Alley?

- A. 0
- B. 5
- C. 10
- D. 15

Student Lunches	
Mrs. Harris	
Mrs. Mitchell	
Mrs. Reed	

Key: Each = 4 students

If 10 students in Mrs. Reed's class bought lunches, what would Mrs. Reed's graph look like?

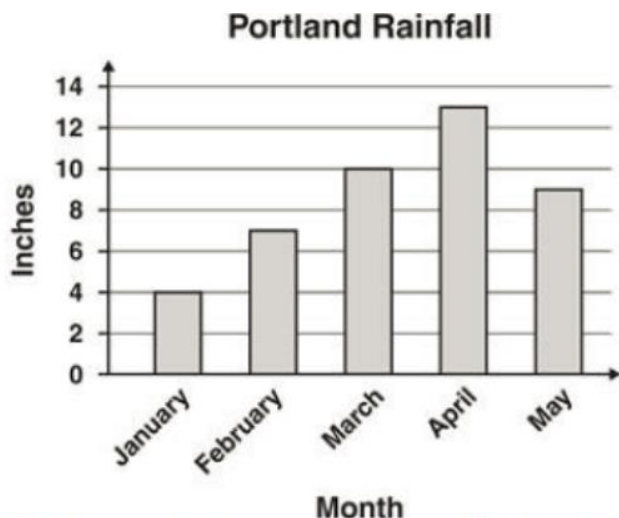
- A.
- B.
- C.
- D.

Mandy	
Justin	
Angela	
Moises	
Hollie	

Key: = 4 ribbons

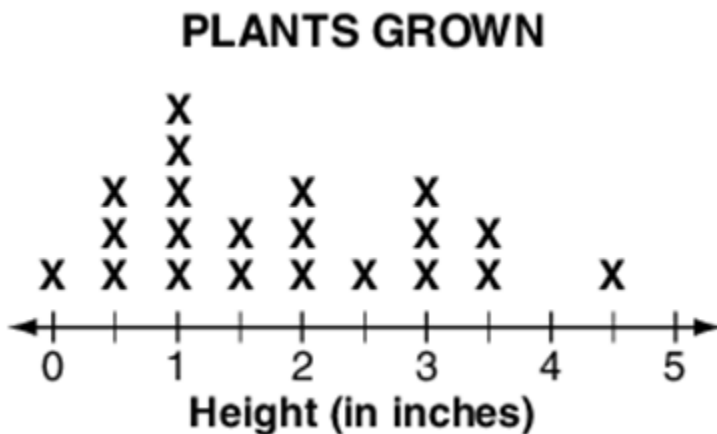
If Hollie won 14 ribbons, what would the graph show for her?

- A.
- B.
- C.
- D.



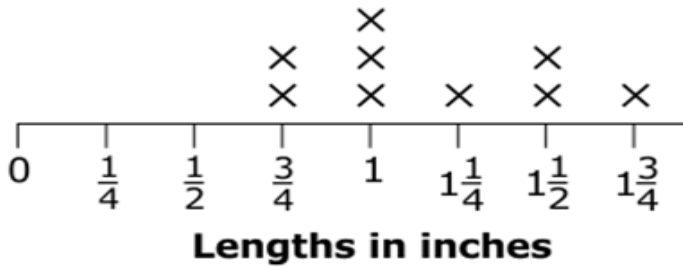
Which two months have a total closest to 16 inches of rain?

- A. January and February
- B. February and May
- C. February and April
- D. April and May



How many plants were  $2\frac{1}{2}$  and  $3\frac{1}{2}$  inches tall?

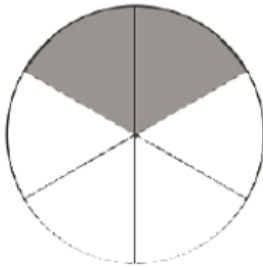
### Erasers



How many erasers were 1 inch or less?

### January: Fractions

Which fraction is shown by the shaded part of the picture below?



- A.  $\frac{2}{6}$
- B.  $\frac{4}{6}$
- C.  $\frac{5}{6}$

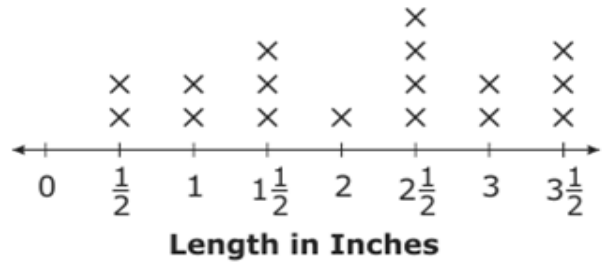
Noel shaded part of the rectangle below.



Which fraction represents the shaded part of the rectangle?

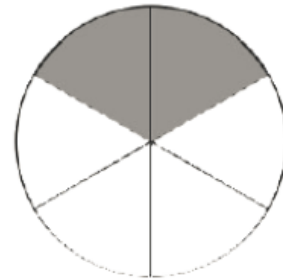
- A.  $\frac{3}{5}$
- B.  $\frac{3}{8}$
- C.  $\frac{5}{8}$
- D.  $\frac{5}{3}$

Each student in Mrs. Evans' class measured a piece of ribbon. The class created the line plot below to show their data.



How many pieces of ribbon measured  $1 \frac{1}{2}$  inches or shorter?

Which fraction is shown by the shaded part of the picture below?



- A.  $\frac{2}{6}$
- B.  $\frac{4}{6}$
- C.  $\frac{5}{6}$

Mr. Emerson divided the gym into six equal sections for the fall festival.

#### Gym Floor Plan for Fall Festival

Games	Food	Seating
Music	Cake Walk	Art

What fraction of the gym do the Games and Music sections make altogether?

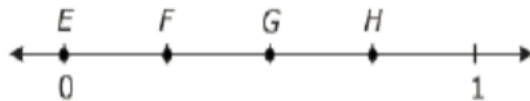
- A.  $\frac{2}{4}$
- B.  $\frac{2}{6}$
- C.  $\frac{6}{2}$

Which fraction does Point *M* represent on the number line?



- A.  $\frac{1}{4}$
- B.  $\frac{2}{4}$
- C.  $\frac{3}{4}$
- D.  $\frac{4}{4}$

Shayla drew the number line below.



Which point did Shayla use to label  $\frac{3}{4}$ ?

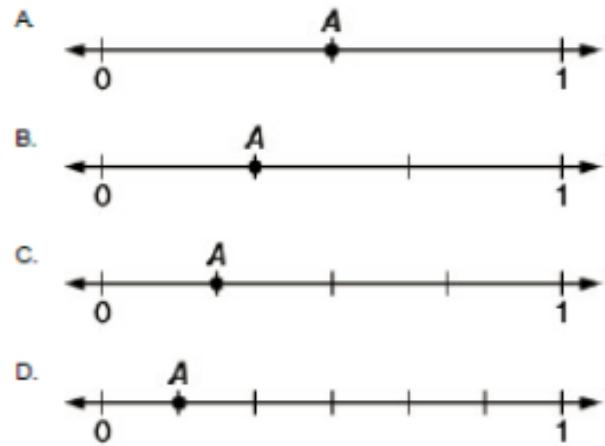
- A. *E*
- B. *F*
- C. *G*
- D. *H*

At which point would  $\frac{2}{6}$  be located on the number line below?



- A. *R*
- B. *S*
- C. *T*
- D. *U*

Which number line has point *A* at  $\frac{1}{3}$ ?



Lucy cut a ribbon for a hat she made. She used  $\frac{4}{6}$  of the ribbon. At which letter is  $\frac{4}{6}$  on the number line below?



- A. *R*
- B. *S*
- C. *T*
- D. *U*

How should Susan label point *S* on the number line below?



- A.  $\frac{4}{5}$
- B.  $\frac{4}{6}$
- C.  $\frac{5}{6}$
- D.  $\frac{5}{7}$

# January: equivalent fractions (We use cross multiplying to find the answers).

**Comparing Fractions**  
Butterfly Method

Draw the ovals of the butterfly

Multiply the numbers in 1 oval & put the answer over the numerator.

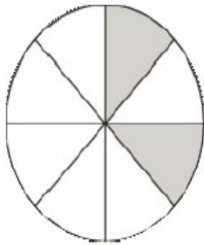
Repeat with the other side

Look at product & write  $<$ ,  $>$ , or  $=$ .

Betsy ate  $\frac{1}{2}$  of her pie. Which fraction is equal to the amount Betsy ate?

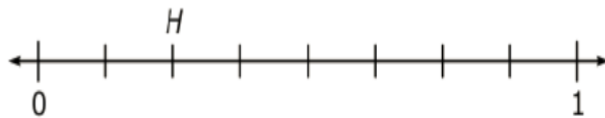
- A.  $\frac{1}{4}$
- B.  $\frac{2}{8}$
- C.  $\frac{3}{4}$
- D.  $\frac{4}{8}$

Which fraction best represents the amount of the model below that is shaded?



- A.  $\frac{1}{8}$
- B.  $\frac{1}{4}$
- C.  $\frac{2}{6}$
- D.  $\frac{2}{4}$

On the number line below, which fraction does H represent?



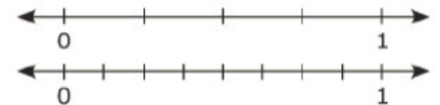
- A.  $\frac{1}{4}$
- B.  $\frac{1}{8}$
- C.  $\frac{1}{3}$

What fraction is equal to point J on the number line below?



- A.  $\frac{1}{2}$
- B.  $\frac{2}{3}$
- C.  $\frac{3}{5}$
- D.  $\frac{3}{4}$

Use the number lines shown to compare fractions.



Which fraction is equal to  $\frac{4}{8}$ ?

- A.  $\frac{1}{4}$
- B.  $\frac{2}{4}$
- C.  $\frac{1}{8}$
- D.  $\frac{2}{8}$

## January: Comparing Fractions and fractions as whole numbers.

Tip #1: If the fraction has the same denominator, you can compare just by looking at the numerator

Tip #2: If the fraction has the same numerator, you can compare just by looking at the denominator.



Which number sentence correctly compares the fractions?

- A.  $\frac{2}{3} > \frac{2}{6}$
- B.  $\frac{2}{3} < \frac{2}{6}$
- C.  $\frac{2}{6} > \frac{2}{3}$
- D.  $\frac{2}{6} = \frac{2}{3}$




Ruth has  $\frac{12}{4}$  apple pies. Which whole number shows how many pies Ruth has?

- A. 3
- B. 8
- C. 16
- D. 48

John saw this number line on his math homework.



What shape is at the fraction  $\frac{4}{4}$  on the number line?

- A. 
- B. 
- C. 

## February: tell time to the nearest minute



**Elapsed time: Use your T-Chart to help you**

1. How much time is between 5:15 to 8:40?
  
  
  
  
  
  
  
  
  
  
2. How much time is between 4:00 to 6:15?

**Breaking down Time to solve for missing end time:**

The game was 90 minutes long. We started playing at 6:00. What time did we finish?

The movie is 120 minutes long. We started watching it at 6:30. What time did the movie finish?

**Missing End Time:**

Chandler left school at 3:15. He got home 52 minutes later. What time did he get home?

The movie starts at 5:00. It ends 1 hour and 45 minutes later. What time does the movie end?

**Missing Start Time:**

Jim's basketball game ended at 4:10. If his game was 1 hour and 10 minutes long, what time did his game start?

Phyllis finished her beautiful drawing at 6:20. If she drew for 1 hour and 20 minutes, when did she begin drawing?

Scott played football outside until 1:15. If he played outside for 2 hours and 30 minutes, when did he start playing football?