

Whose book is this?



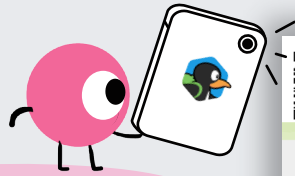
# **ST MATH ACTIVITY PAGES**

## **5th Grade**

# Welcome to the ST Math Activity Pages!

This activity page is like a playground of your favorite ST Math games in book form.

Scan the QR codes to play the ST Math puzzles related to each page.



I like the challenging problems in this book because I like the feeling when I figure it out.

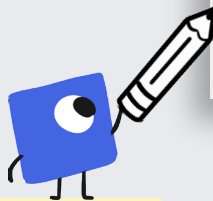
I like problems that are:

- tricky
- easy
- complex
- short
- open-ended
- 

because...

The problems remind me of the games in ST Math.

There are many ways to show your thinking.



## What's Inside?

**Jiji Cycle**

Jiji moves forward by  $\frac{7}{15}$  of a wheel, then another  $\frac{11}{20}$  of a wheel.

Sketch what this puzzle will look like. About where will Jiji Land?

How did you use estimation to solve this puzzle?

Connect the values that are the closest match.

+	≈	≈ 0
+	≈	≈ $\frac{1}{2}$
+ $\frac{11}{5}$	≈	≈ 1
$\frac{7}{8}$ + $\frac{12}{13}$	≈	≈ $1\frac{1}{2}$
$\frac{1}{10}$ + $\frac{9}{20}$	≈	≈ 2
$\frac{24}{25}$ - $\frac{8}{9}$	≈	≈ $2\frac{1}{2}$
$\frac{24}{6}$ - $\frac{9}{10}$	≈	≈ 3

Match

Write

$2 \times 3 = 6$

Model

2 groups

Draw

Plot

Fill in

This is **your** math journey, so make this book **yours** - fill it with your ideas, make mistakes, and challenge yourself!

What if I don't know what to do?

Try writing down what you think and then see how your ideas work out.

What if I don't get it correct right away?

Mistakes are okay because you can always come back to it. And mistakes help us learn!



The ST Math Activity Pages may look new to you and your child, and that's great! Every problem is a learning opportunity. Use the Activity Pages to talk and wonder about math with your child.

<i>If...</i>	<i>Then...</i>
You're not sure what to do	Talk through the ideas each of you have and what makes most sense to each of you, then try it out! Problem solving is collaborative.
Your child is stuck	Ask questions to see how they're thinking. Move on to a different problem that interests them. Return to a problem they understand to make connections. Take a break.
ST Math is new to you	Have your child explain how the game works to you.

### Math Themes of 5th Grade

- Fractions and decimals with all four operations
- Multi-step problem solving with all four operations
- Patterns and expressions
- Converting units of measurement
- Data

### Questions you can ask your child

- What is the ST Math game about?
- What do you already know about this problem? Or things you know related to this problem?
- What else do you see on this page that could be a clue?
- What was your strategy on a previous, simpler problem?
- Based on the question, what is a reasonable answer?
- Try out a solution and re-read the problem. Does it make sense?



### Remember:

It's not about getting an answer, but how your child is thinking about a problem. If you can't get to an answer, how much progress can you make towards it?

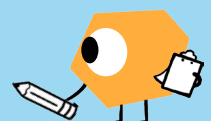
Getting the right answer is less important than how you handle and approach being stuck.

## Bring math into your lives

As a family, you can continue to explore and discover math in the world around you.

Play games, read stories, and create projects at [mindresearch.org/mathminds](http://mindresearch.org/mathminds)

Find more resources for math at home at [stmath.com](http://stmath.com)





# FRACTION DECIMAL TRAP

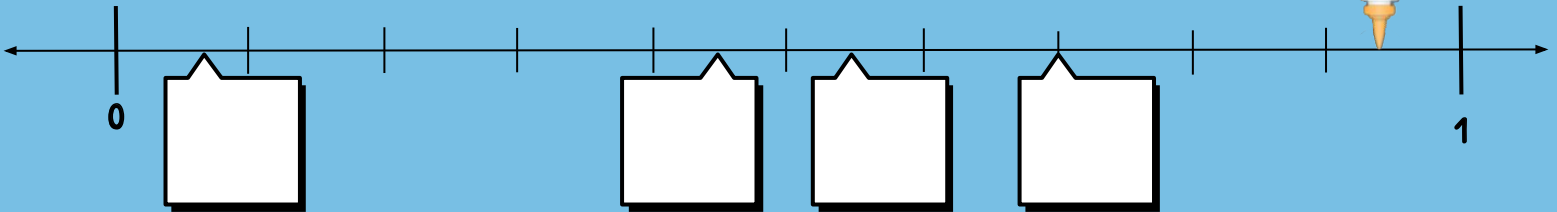
0.07

$\frac{7}{10}$

$\frac{45}{100}$

0.54

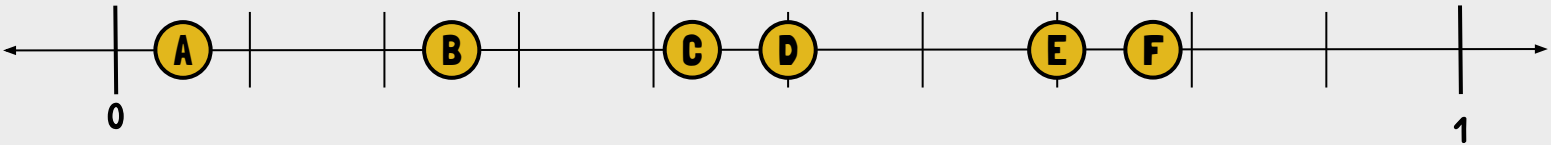
What value could the glue bottle trap here?



$0.77 = \bigcirc$

$\bigcirc = 0.05$

$\square = \bigcirc \text{ B}$



$\frac{5}{10} = \bigcirc = 0.5$

$\bigcirc \text{ C} = \left. \begin{array}{c} \square \\ \square \end{array} \right\} = \square$

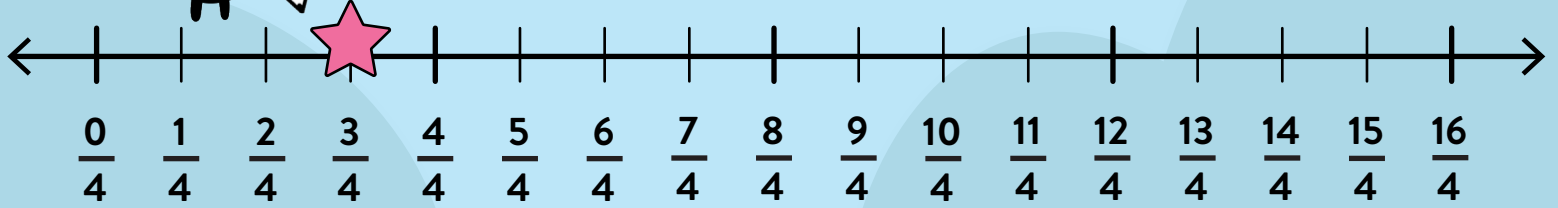


Javon and Chloe had a snail race.  
 Javon's snail got to  $0.65$  of the way.  
 Chloe's snail got to  $\frac{7}{10}$  of the way.  
 Whose snail went further?  
 How do you know?



# NUMBER LINE EQUIVALENCE

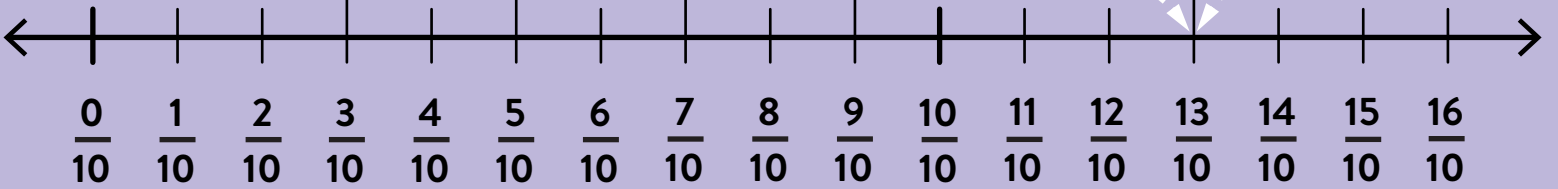
Where do the rest of these shapes go on the number line?



$\frac{6}{\quad}$	$\frac{3}{2}$	$\frac{24}{12}$	$\frac{2}{8}$	$\frac{8}{2}$



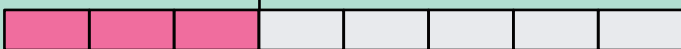
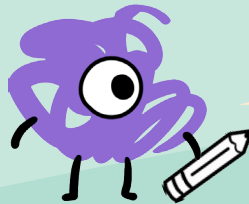
$\frac{\quad}{\quad}$	$\frac{\quad}{\quad}$	$\frac{\quad}{\quad}$	$\frac{\quad}{\quad}$	$\frac{\quad}{\quad}$	$\frac{\quad}{\quad}$	$\frac{\quad}{\quad}$
100	50		20			



This number line is missing its labels. I can figure them out by...



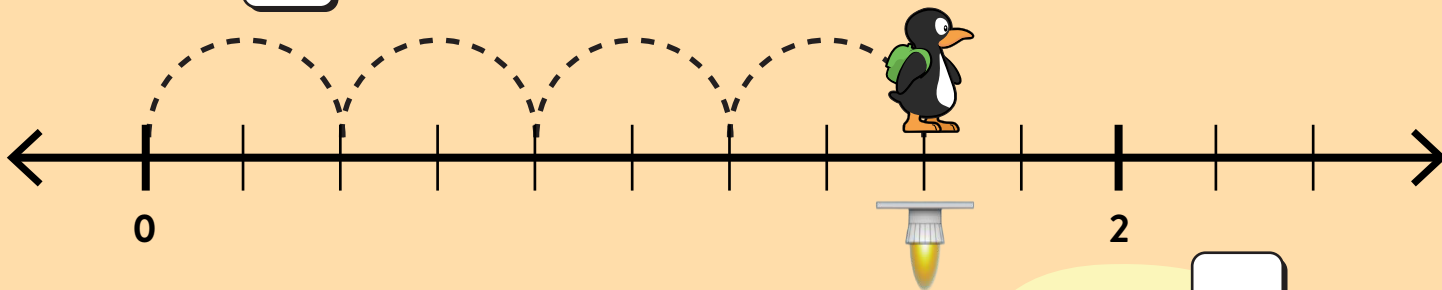
$\frac{\quad}{\quad}$	$\frac{\quad}{\quad}$	$\frac{\quad}{\quad}$
$\frac{\quad}{\quad}$	$\frac{\quad}{\quad}$	$\frac{\quad}{\quad}$



# UNIT MULTIPLICATION ON THE NUMBER LINE



$$4 \times \left\{ \begin{array}{c} \square \\ \square \end{array} \right\}$$



Where is Jiji on the number line?

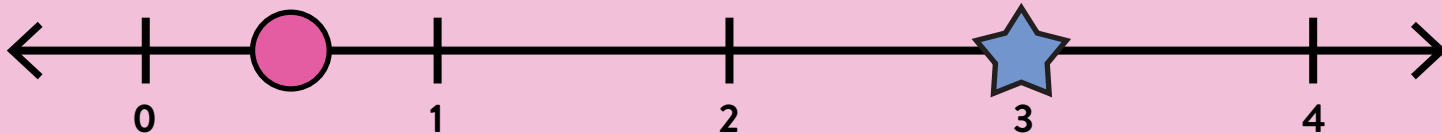
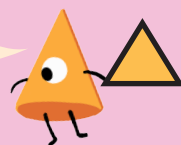


$$3 \times \left\{ \begin{array}{c} \square \\ \square \end{array} \right\} = \text{pink circle} = 5 \times \left\{ \begin{array}{c} \square \\ \square \end{array} \right\}$$

$$\square \times \frac{3}{4} = \text{blue star} = 6 \times \left\{ \begin{array}{c} \square \\ \square \end{array} \right\}$$

$$5 \times \frac{3}{4} = \text{orange triangle} = \square \times \frac{5}{8}$$

Where does this belong on the number line?

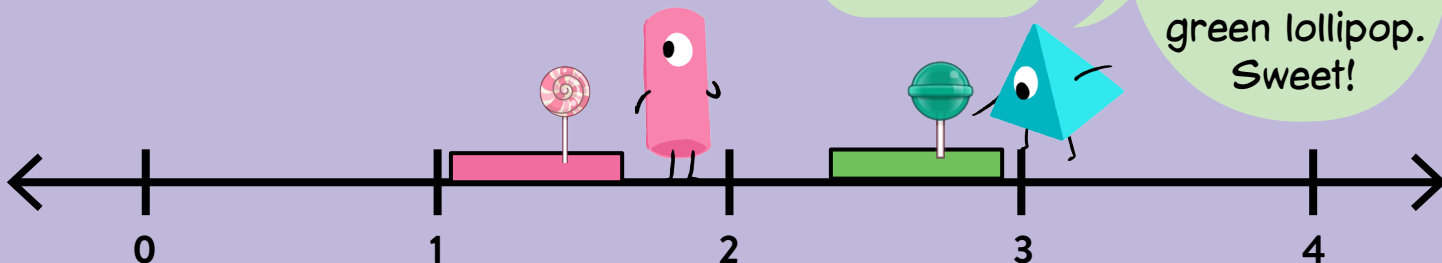


$$\square \times \frac{2}{3}$$

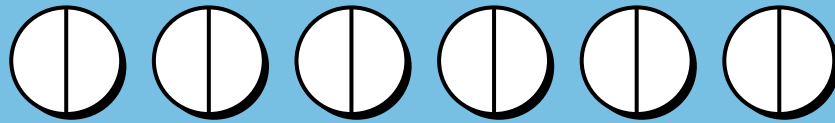
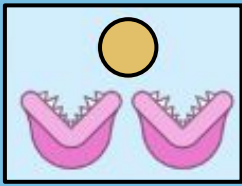
$\square \times \frac{1}{20}$  will put me next to the pink lollipop. Yum!

$$11 \times \left\{ \begin{array}{c} \square \\ \square \end{array} \right\}$$

$3 \times \left\{ \begin{array}{c} \square \\ \square \end{array} \right\}$  will put me next to the green lollipop. Sweet!

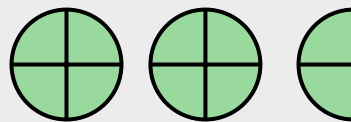
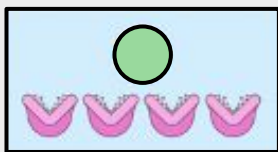
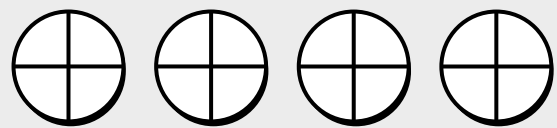
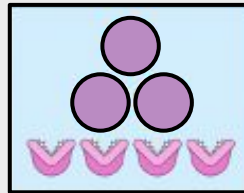


# FRUIT MONSTER

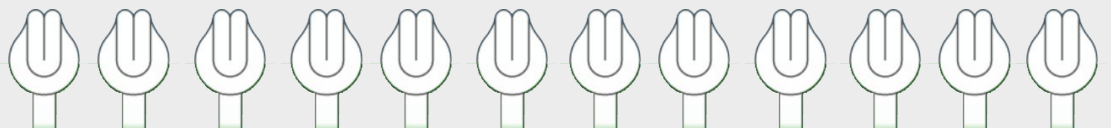


$$\frac{1}{2} \times 5 = \boxed{\phantom{00}}$$

$$\frac{3}{4} \times 3 = \boxed{\phantom{00}}$$



$$\frac{1}{4} \times \boxed{\phantom{00}} = \frac{10}{4}$$



A cake recipe that serves six people needs 4 cups of sugar. I want to reduce the recipe to serve four people. How much sugar should I use?

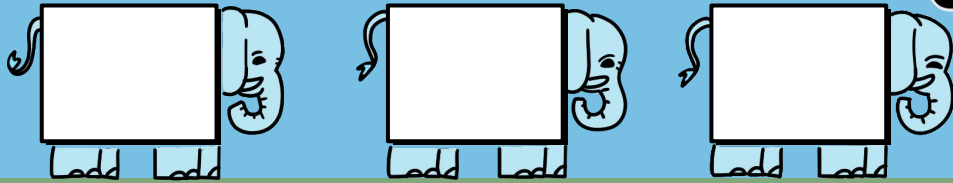
$$2 \times \frac{2}{3} = \boxed{\phantom{00}}$$

$$\boxed{\phantom{00}} = \frac{3}{5} \times 6$$

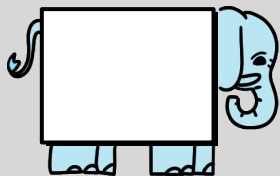
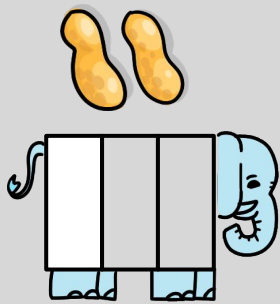




# ELEPHANT PEANUTS

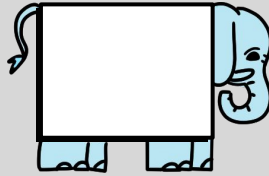
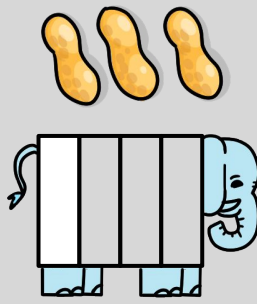


We would each eat  peanuts.

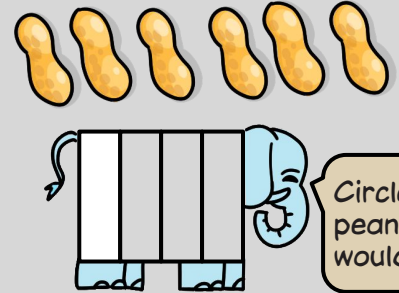


I would eat  peanuts

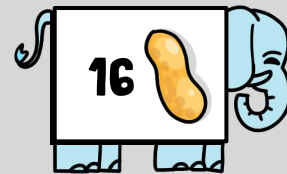
$$2 \div \frac{1}{3} = \square$$



$$3 \div \frac{1}{4} = \square$$



Circle the peanuts I would eat.



$$\square \div \frac{1}{4} = 16$$

$$\square = 6 \div \frac{1}{3}$$

$$2 \div \frac{1}{2} = \square$$



A cupcake uses  $\frac{1}{2}$  cup of batter.  
I made 8 cups of batter.  
How many cupcakes can I make?

