ST Math®

Summer Immersion

Problem Solving Slide Deck

Grade 5

stmath.com

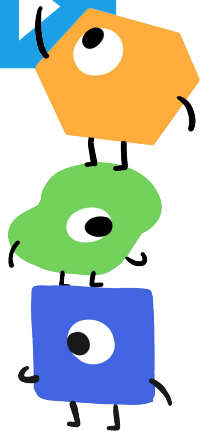
Module 1

Let’s get started on the fun!

Who is JiJi?

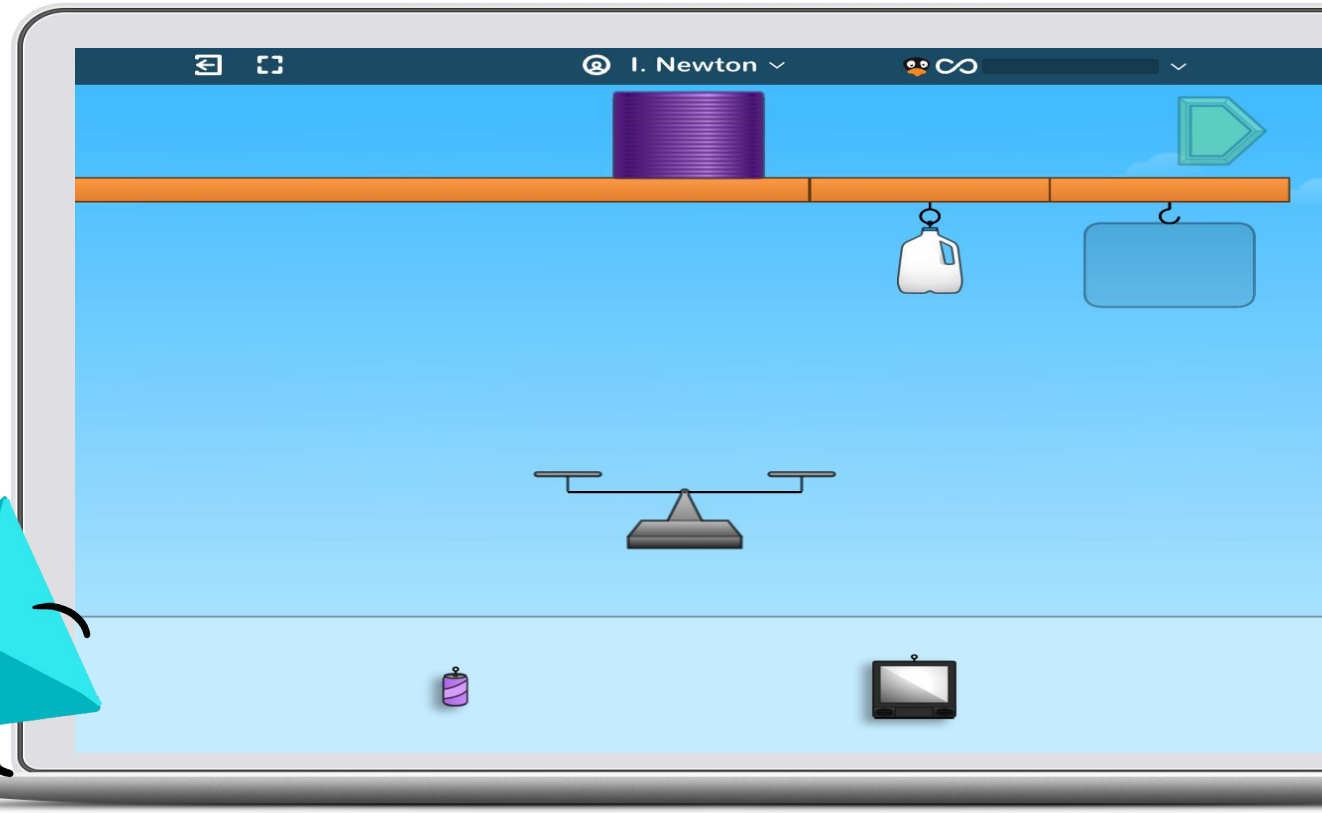
New to ST Math?

Guided Intro



Module 1 - Day 1

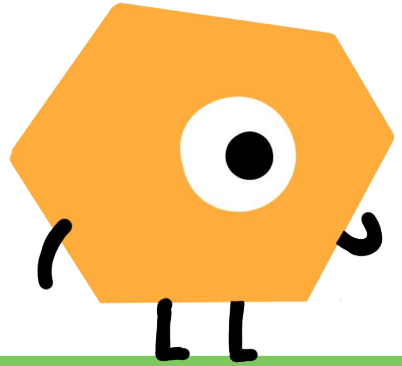
New to ST Math?



Play the Slinky game

Module 1 - Day 1

Share ST Math Experience!



What do you know about ST Math?

What do you like about ST Math?

What is your favorite ST Math game? Why?

One ST Math tip I have is . . .

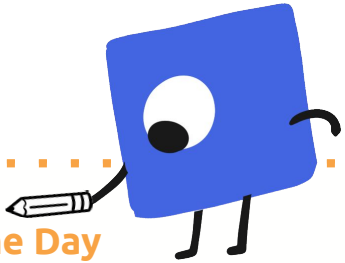
A question I have is . . .

My ST Math Goal is . . .

I'm wondering about . . .

Module 1 - Day 1

Problem Solving

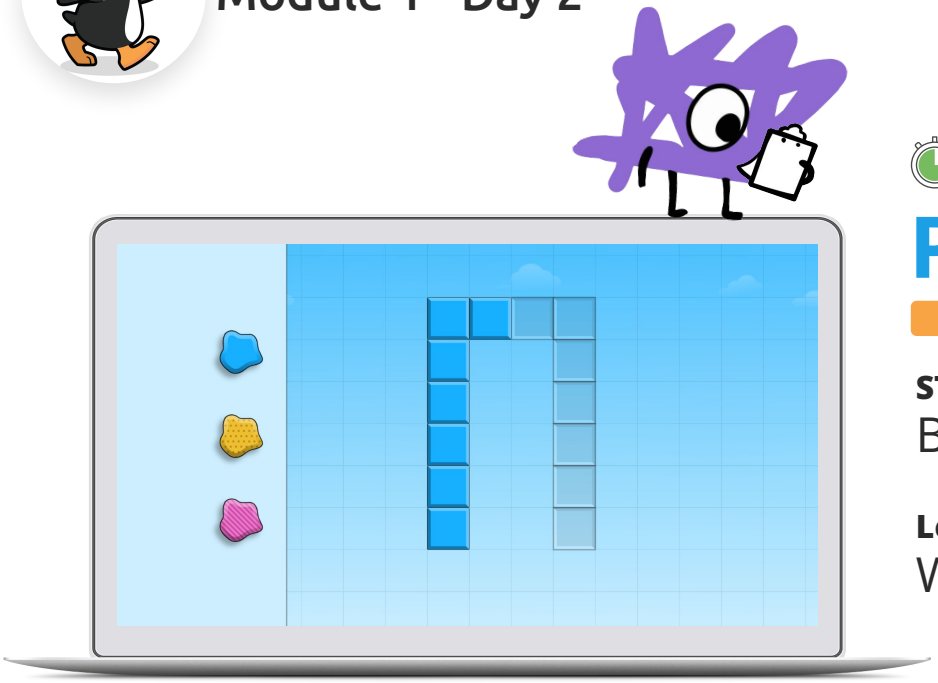


Problem of the Day

Create a class “Getting to Know Our Class” chart.

Module 1 - Day 2

Puzzle Talk



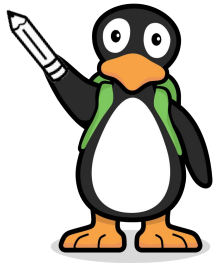
Time for

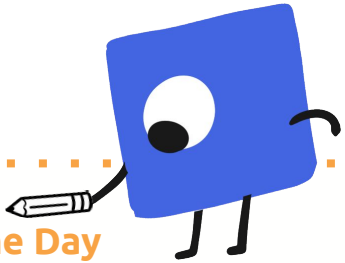
PROBLEM SOLVING!

ST Math Puzzle:
Big Seed > Level 1

Learning Objective:
What do you know about ST Math?

Puzzle Link





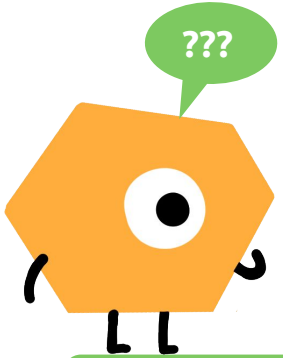
Problem of the Day

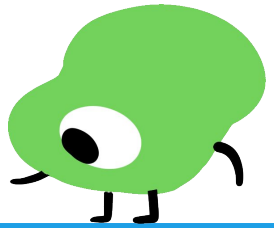
Describe the class mathematically.

Module 1 - Day 3

My Thinking Path

Topic: Comparing fractions and decimals on a number line





What I know about fractions is...

What I know about adding and subtracting fractions is...

One thing I learned is . . .

A question I have is . . .

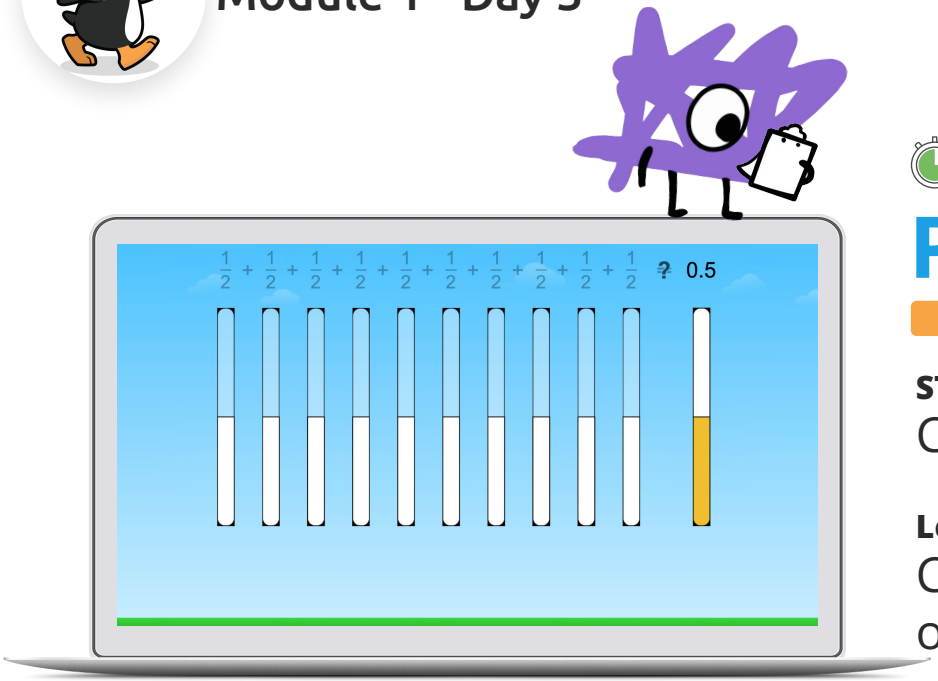
This is like...

This is not like....

I wonder...

Module 1 - Day 3

Puzzle Talk



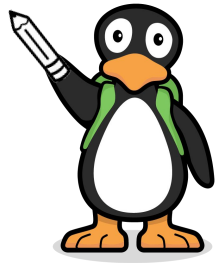
Puzzle Link

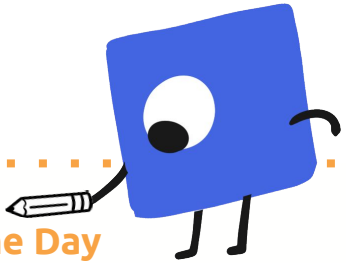
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Complementary Fractions > Level 1

Learning Objective:
Comparing fractions and decimals on a number line





Problem of the Day

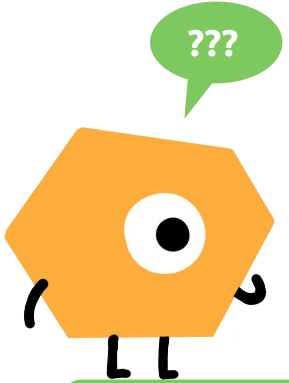
Trisha was in charge of making a sign for each 1/4 mile distance for a 2 mile race. She marked the distances in decimals.

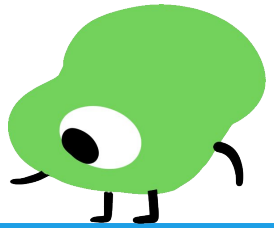
What numbers did Trisha write on her signs?

Module 1 - Day 4

My Thinking Path

Topic: Comparing fractions and decimals on a number line





What I know about comparing fractions is...

What I know about decimals is...

One thing I learned is . . .

A question I have is . . .

This is like...

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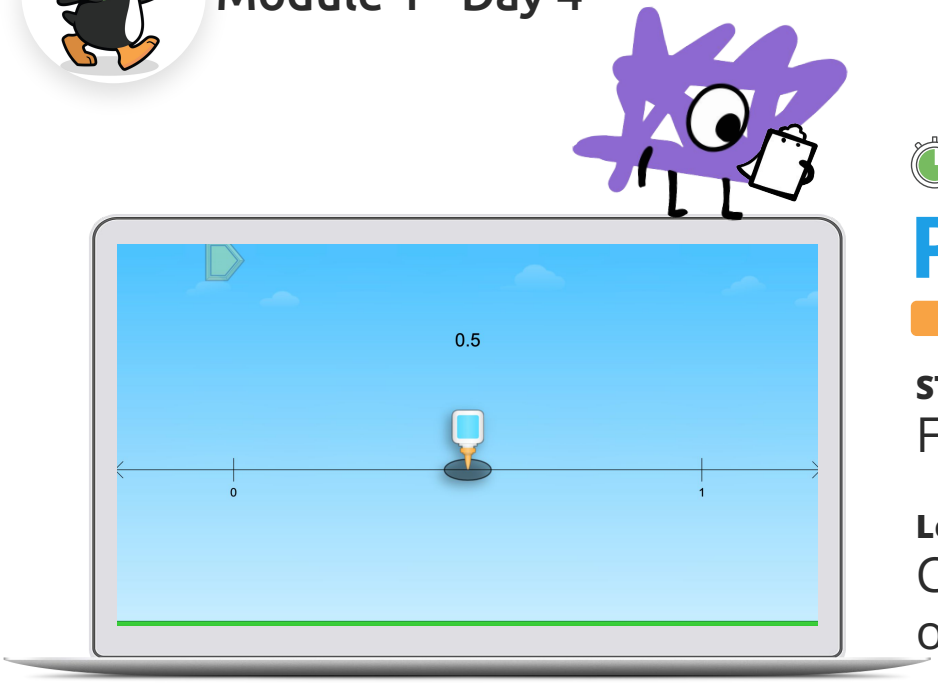
I wonder...

Module 1 - Day 4

Puzzle Talk



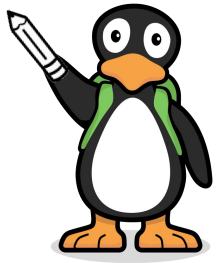
Puzzle Link

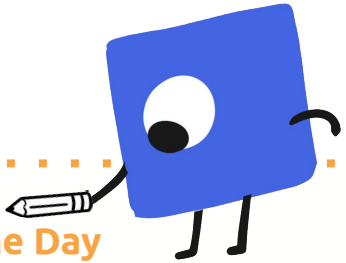
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Fraction Decimal Trap > Level 1

Learning Objective:
Comparing fractions and decimals on a number line





Problem of the Day

Trisha's coach gave her this number line to record her distances for the first mile. Mark and label the quarter mile distances shown on her signs. If needed, you can draw the number line larger below.

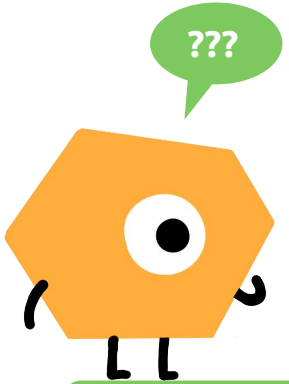
Module 2

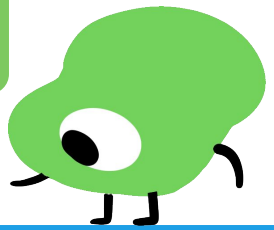
Can’t wait to see what we do!

Module 2 - Day 1

My Thinking Path

Topic: Adding and subtracting fractions with unlike denominators





What I know about adding fractions is...

What I know about subtracting fractions is...

One thing I learned is . . .

A question I have is . . .

This is like...

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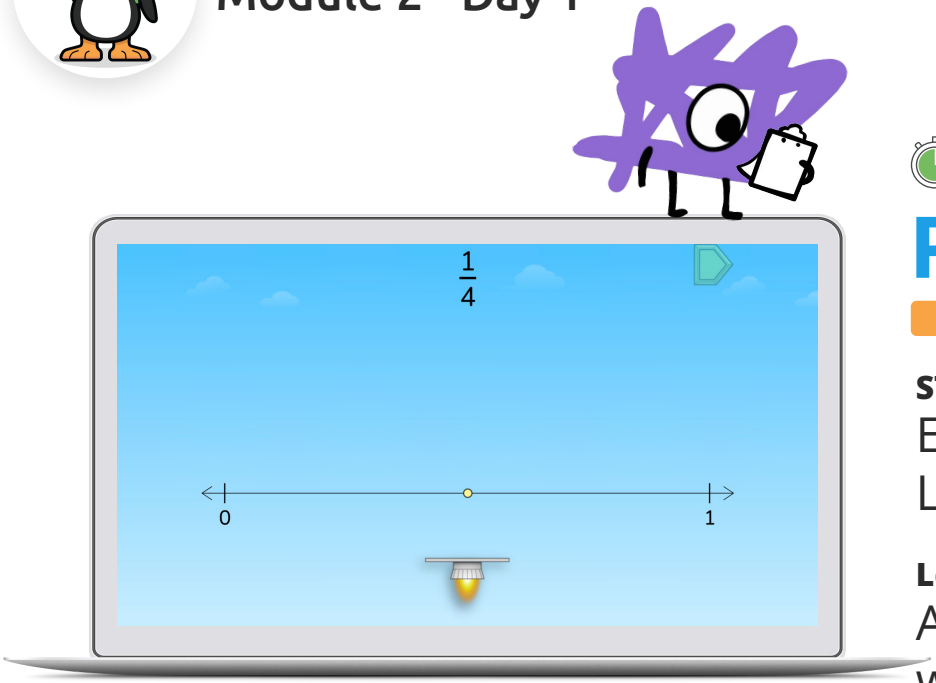
I wonder...

Module 2 - Day 1

Puzzle Talk



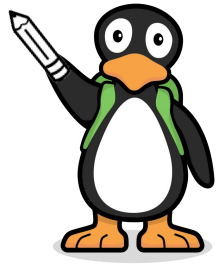
Puzzle Link

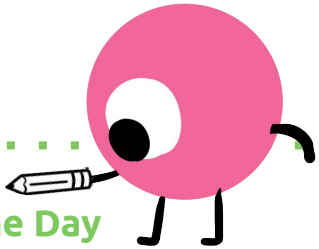
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Estimate Fractions on a Number Line > Level 1

Learning Objective:
Adding and subtracting fractions with unlike denominators





Problem of the Day

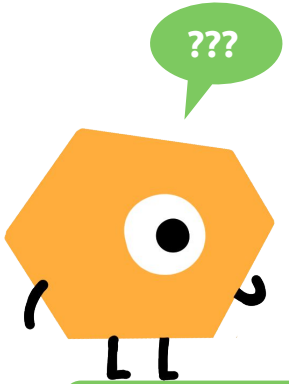
Draw a number line. Place the following fractions 3/6, 7/8, 11/12, 8/6, 1/8, 3/4, 25/12, 6/3, 6/12, 6/5, 3/5, and 14/8 on the number line.

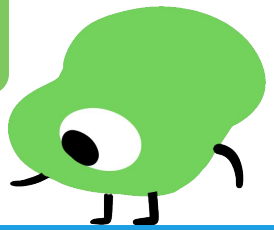
Select three of the fractions you placed on the number line and explain how you determined where to place these fractions. Challenge yourself.

Module 2 - Day 2

My Thinking Path

Topic: Adding and subtracting fractions with unlike denominators





What I know about adding fractions is...

What I know about subtracting fractions is...

One thing I learned is . . .

A question I have is . . .

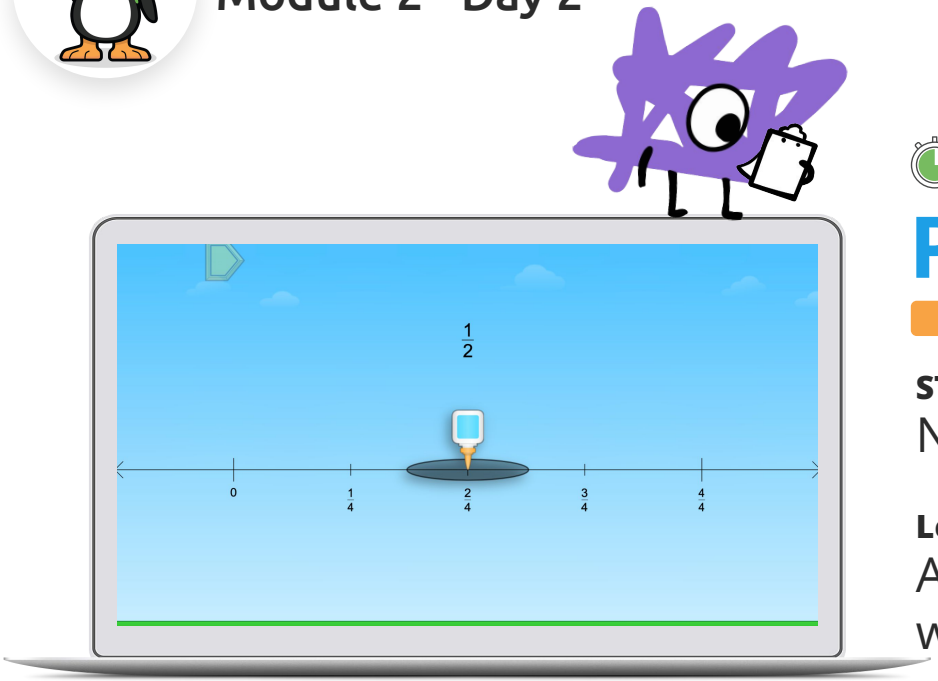
This is like...

This is not like....

I wonder...

Module 2 - Day 2

Puzzle Talk



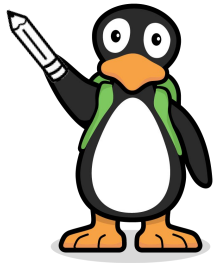
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Number Line Equivalence > Level 1

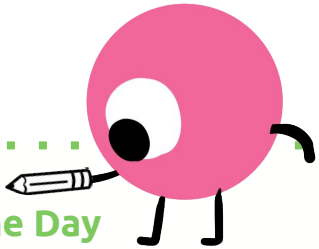
Learning Objective:
Adding and subtracting fractions with unlike denominators

Puzzle Link



Module 2 - Day 2

Problem Solving



Problem of the Day

Use the bars below to add the fractions by turning them into equivalent fractions with the same denominator.

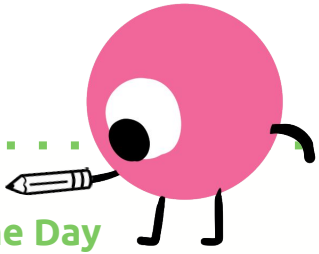
1/4 + 1/3 = ?

Do the same to problem number 2/3 + 1/6 = ?

(next slide)

Module 2 - Day 2

Problem Solving



Problem of the Day

Problem 1

$\frac{1}{4}$ =  = $\frac{?}{?}$

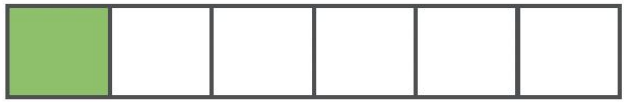
+

$\frac{1}{3}$ =  = $\frac{?}{?}$

Problem 2

$\frac{2}{3}$ =  = $\frac{?}{?}$

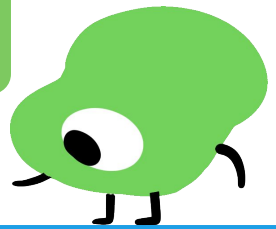
+

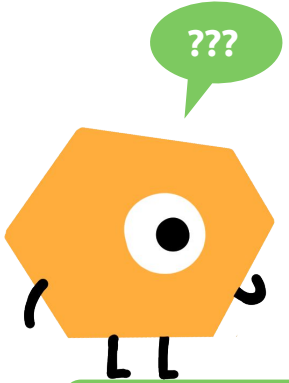
$\frac{1}{6}$ =  = $\frac{?}{?}$

Module 2 - Day 3

My Thinking Path

Topic: Adding and subtracting fractions with unlike denominators





What I know about adding fractions is...

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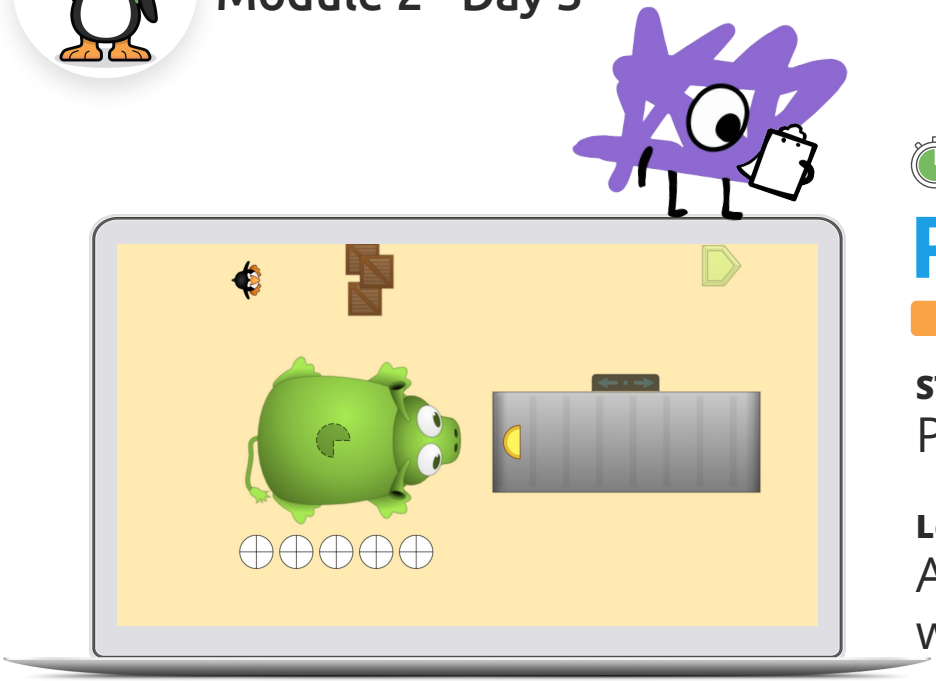
Module 2 - Day 3

Puzzle Talk



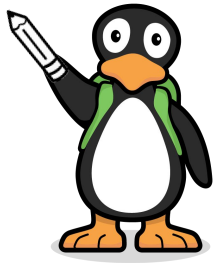
Time for

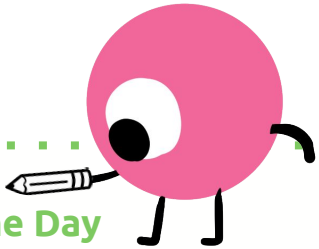
PROBLEM SOLVING!

ST Math Puzzle:
Pie Monster > Level 1

Learning Objective:
Adding and subtracting fractions with unlike denominators

Puzzle Link





Problem of the Day

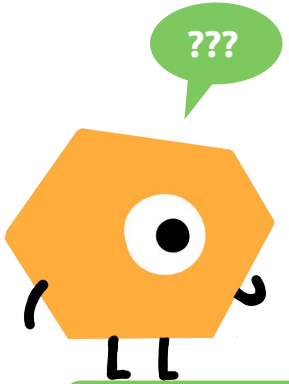
Darla wanted to make 2 gallons of punch to take to the school picnic. She found a recipe that called for 3/4 gallons of fruit punch, 2 quarts of orange juice, 3/8 gallons of lime soda, and 1/2 gallon of water.

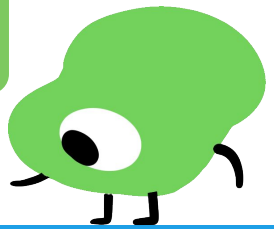
If Darla makes this recipe, will she have as much punch as she wants? Justify your solution.

Module 2 - Day 4

My Thinking Path

Topic: Adding and subtracting fractions with unlike denominators





What I know about adding fractions is...

What I know about subtracting fractions is...

One thing I learned is . . .

A question I have is . . .

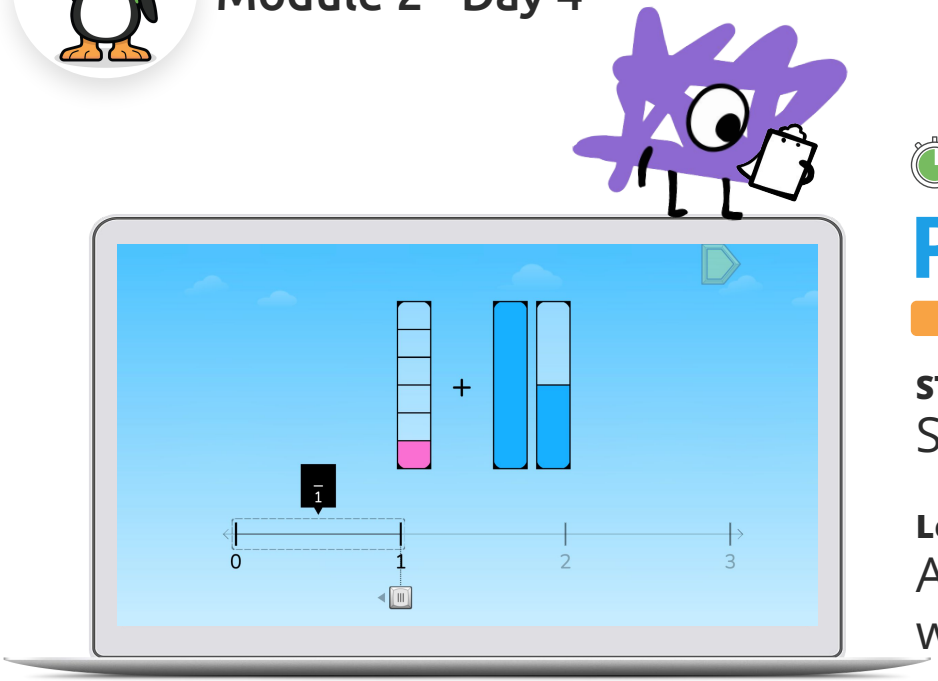
This is like...

This is not like....

I wonder...

Module 2 - Day 4

Puzzle Talk



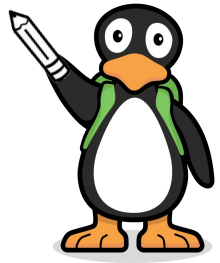
Puzzle Link

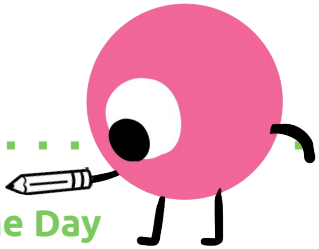
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Scale Fraction Visual > Level 1

Learning Objective:
Adding and subtracting fractions with unlike denominators





Problem of the Day

Kevin filled 4 glasses with different amounts of water so they would make different sounds when he rubbed his finger along the rim. Glass A held 5/8 cup of water, glass B held 3/4 cup of water, glass C held 3/6 cup of water, glass D held 2/6 cup of water. How much water did Kevin use? How much water could he put in a fifth glass if he had 3 cups of water?

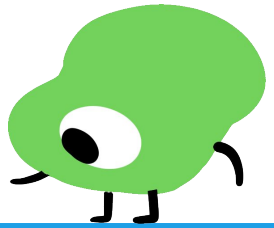
Module 3

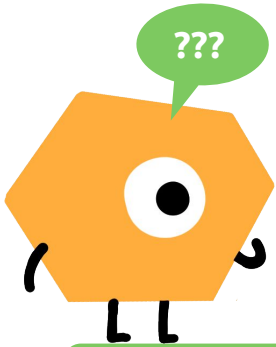
Learning math carefree!

Module 3 - Day 1

My Thinking Path

Topic: Solving problems involving multiplying a fraction or a whole number by a fraction





What I know about multiplying fractions is...

What I know about multiplying a whole number by a fraction is...

One thing I learned is . . .

A question I have is . . .

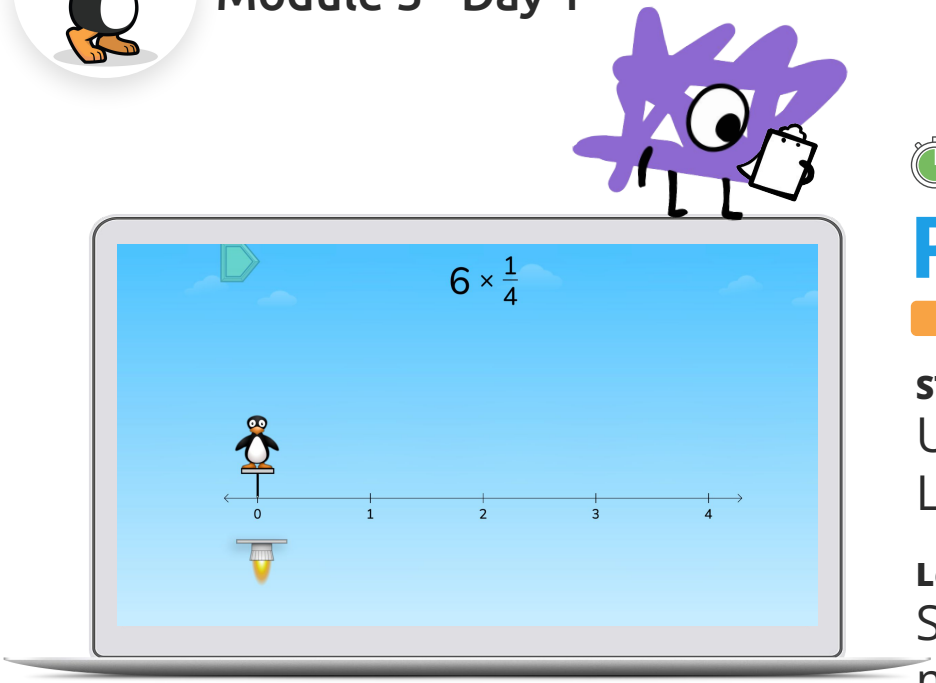
This is like...

This is not like....

I wonder...

Module 3 - Day 1

Puzzle Talk



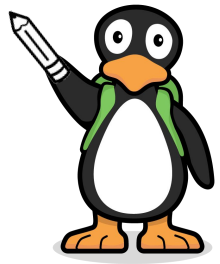
Puzzle Link

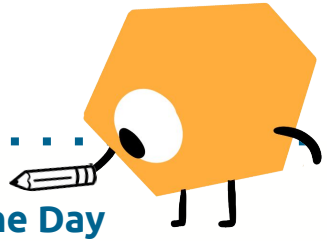
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Unit Multiplication on the Number Line > Level 1

Learning Objective:
Solving problems involving multiplying a fraction or a whole number by a fraction

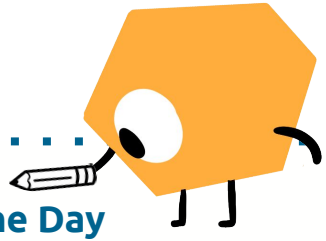




Problem of the Day

Partner A: Ribbon at Jones' Ribbon Shop is sold in various lengths. Rebecca bought two pieces of red ribbon to make hair bows. She selected the red ribbon from the bin with lengths of 3/4 foot. How much ribbon did Rebecca buy? Compare your problem to your partner's problem.

(next slide)



Problem of the Day

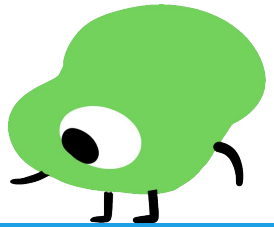
Partner B: Ribbon at Jones' Ribbon Shop is sold in various lengths. Chris bought a piece of ribbon that was 2 feet long. He used 3/4 of the ribbon.

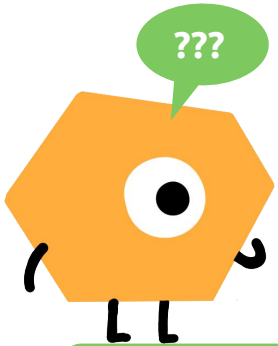
How much ribbon did he use? Compare your problem to your partner's problem.

Module 3 - Day 2

My Thinking Path

Topic: Solving problems involving multiplying a fraction or a whole number by a fraction





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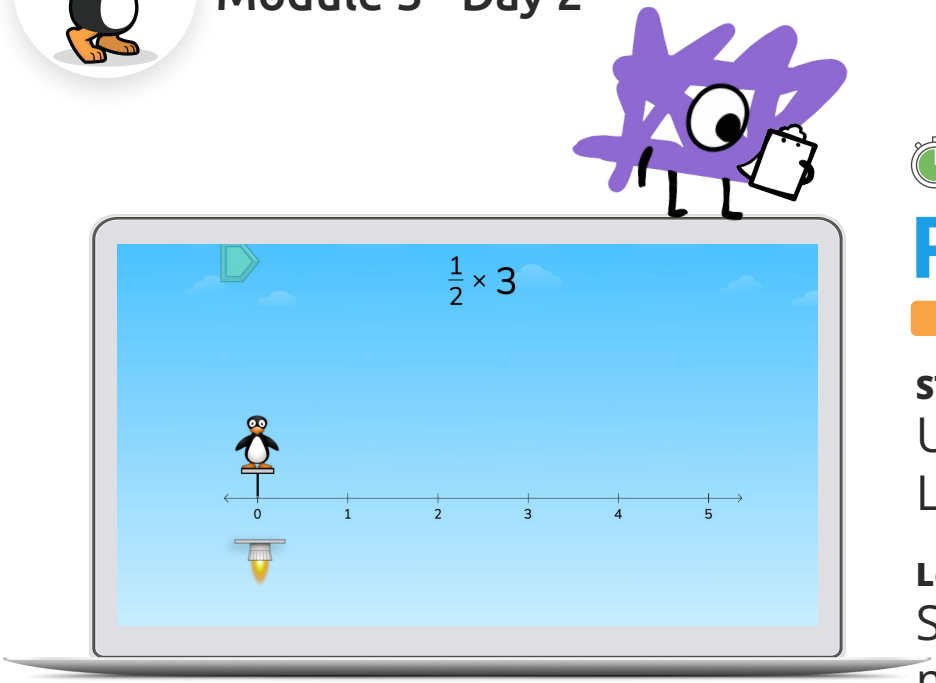
Module 3 - Day 2

Puzzle Talk



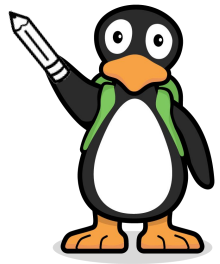
Puzzle Link

Time for

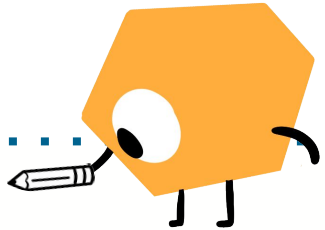
PROBLEM SOLVING!

ST Math Puzzle:
Unit Multiplication on the Number Line > Level 3

Learning Objective:
Solving problems involving multiplying a fraction or a whole number by a fraction



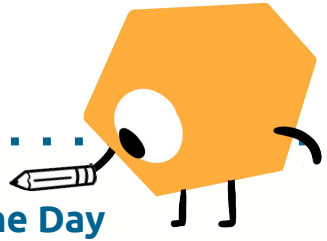
Problem Solving



Problem of the Day

Partner A: Janet discovered that the distance to the park and back to her house is 3/4 mile. She ran to the park and back home 5 times. How far did she run?

Compare your problem to your partner's problem.



Problem of the Day

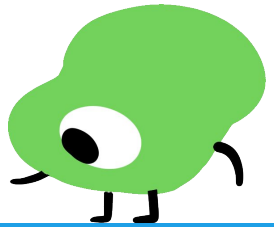
Partner B: Bailey lives 5 miles from the park. She decided to run to the park. She got 3/4 of the way there, stopped and called her mother to pick her up. How far did Bailey run?

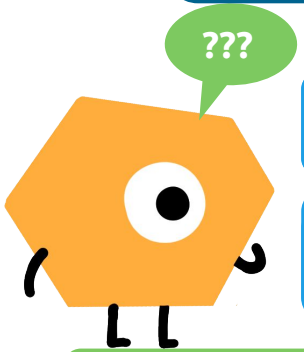
Compare your problem to your partner's problem.

Module 3 - Day 3

My Thinking Path

Topic: Solving problems involving multiplying a fraction or a whole number by a fraction





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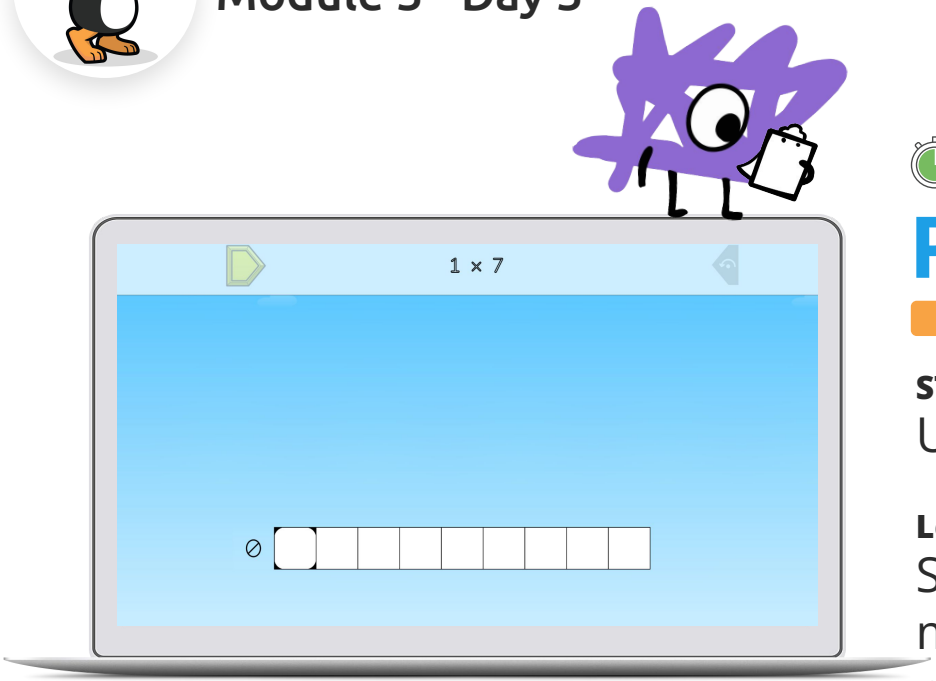
Module 3 - Day 3

Puzzle Talk



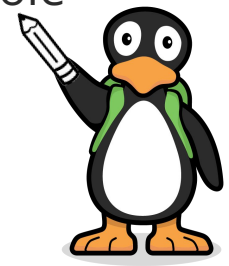
Puzzle Link

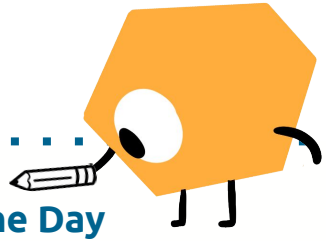
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Unit Multiples > Level 1

Learning Objective:
Solving problems involving multiplying a fraction or a whole number by a fraction





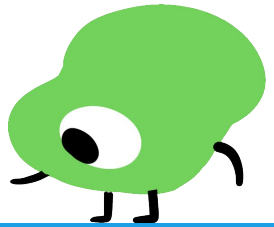
Problem of the Day

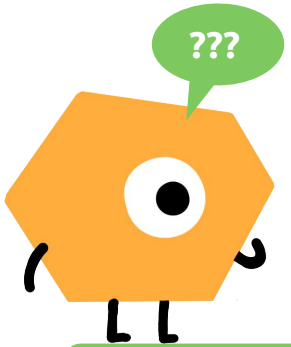
James built a launchpad for his toy space ship. The pad was 2 feet by 7/8 foot. What was the area of James' launchpad?

Module 3 - Day 4

My Thinking Path

Topic: Solving problems involving multiplying a fraction or a whole number by a fraction





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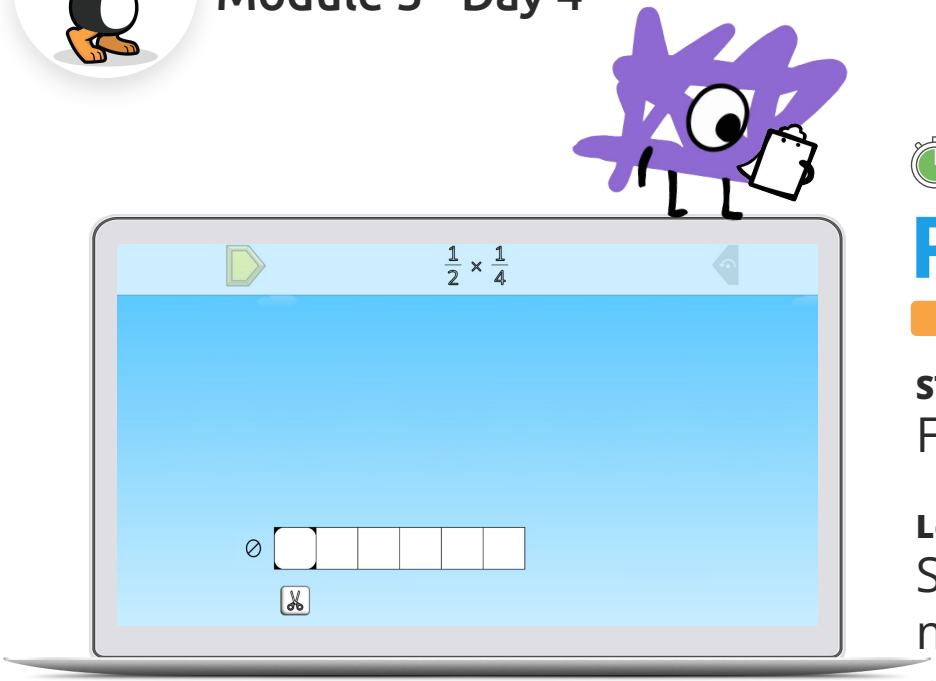
Module 3 - Day 4

Puzzle Talk



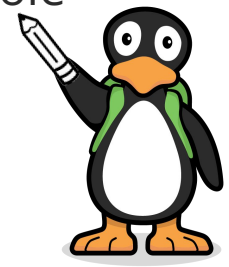
Puzzle Link

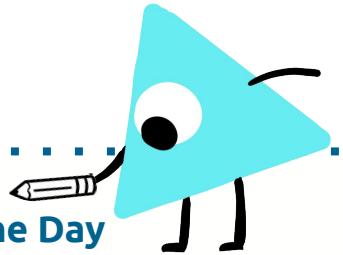
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Fraction Area > Level 1

Learning Objective:
Solving problems involving multiplying a fraction or a whole number by a fraction





Problem of the Day

LeVonne tiled her bedroom with carpet squares. Her bedroom is 12 tiles by 16 tiles. The carpet tiles she used were 3/4 foot by 3/4 foot. What is the area of LeVonne's bedroom?

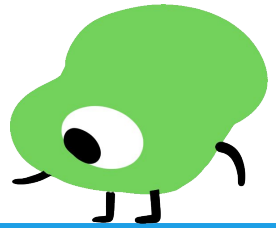
Module 4

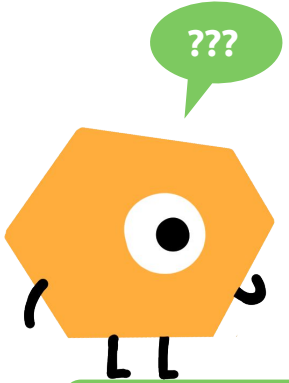
Let’s learn some more!

Module 4 - Day 1

My Thinking Path

Topic: Dividing by fraction





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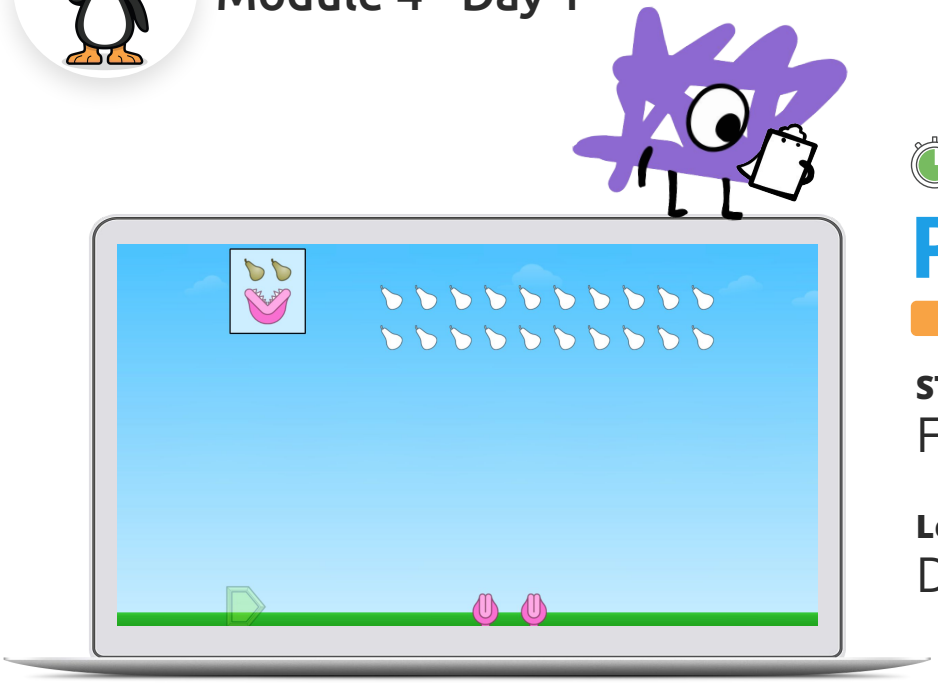
Module 4 - Day 1

Puzzle Talk



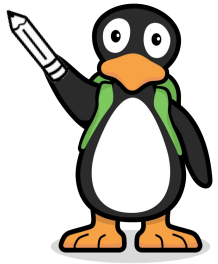
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Fruit Monster > Level 1

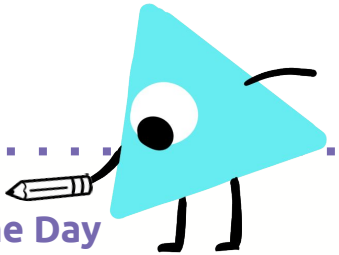
Learning Objective:
Dividing by fraction

Puzzle Link



Module 4 - Day 1

Problem Solving



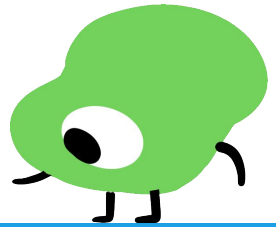
Problem of the Day

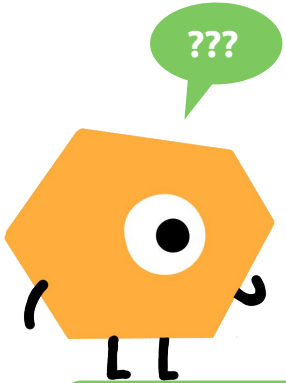
Bill, Jack, and Jill each had an empty pail. They had to carry 2 gallons of water up the hill. If they each carried the same amount of water, how much water did each friend carry? Prove that the total amount of water they carried equals two pails of water.

Module 4 - Day 2

My Thinking Path

Topic: Dividing by fraction





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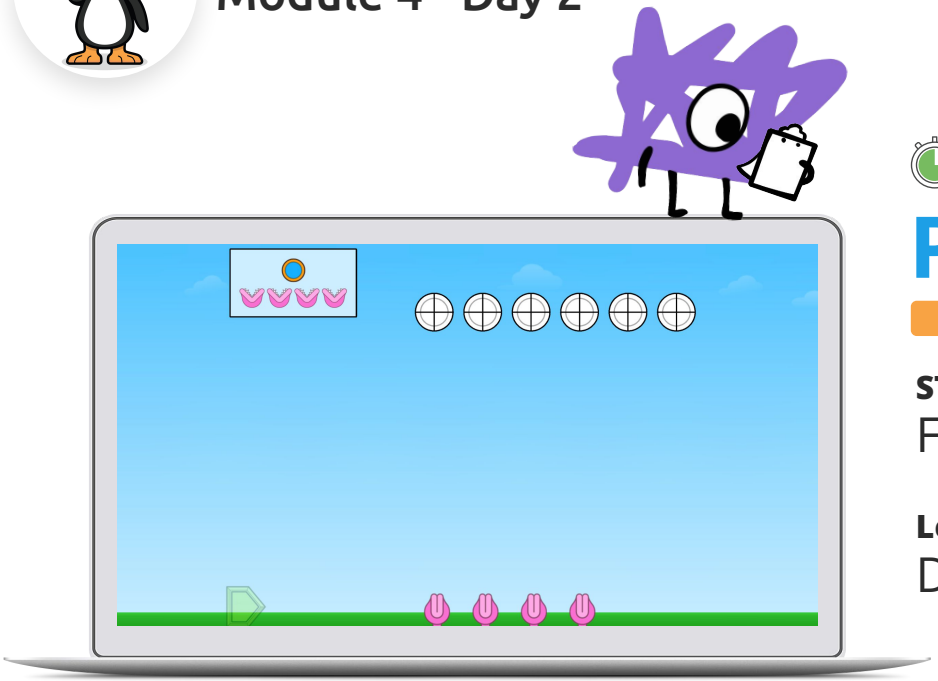
Module 4 - Day 2

Puzzle Talk



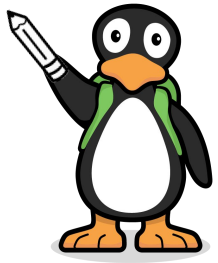
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Fruit Monster > Level 3

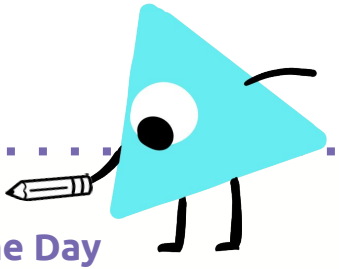
Learning Objective:
Dividing by fraction

Puzzle Link



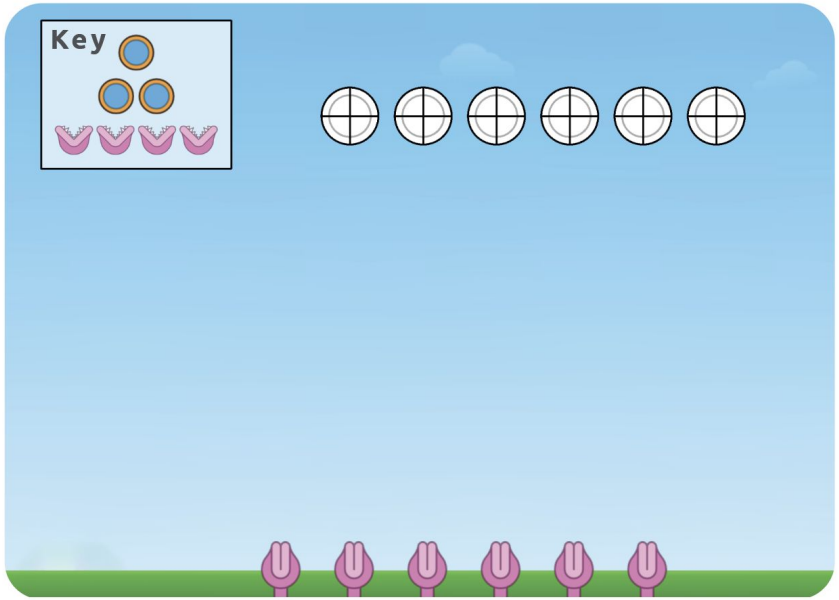
Module 4 - Day 2

Problem Solving



Problem of the Day

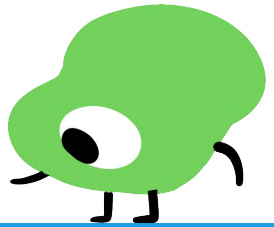
How many pies will 6 monsters eat? Write an equation to show you could solve the problem.

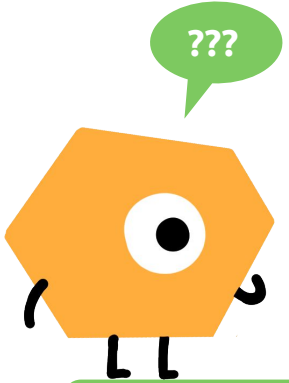


Module 4 - Day 3

My Thinking Path

Topic: Dividing by fraction





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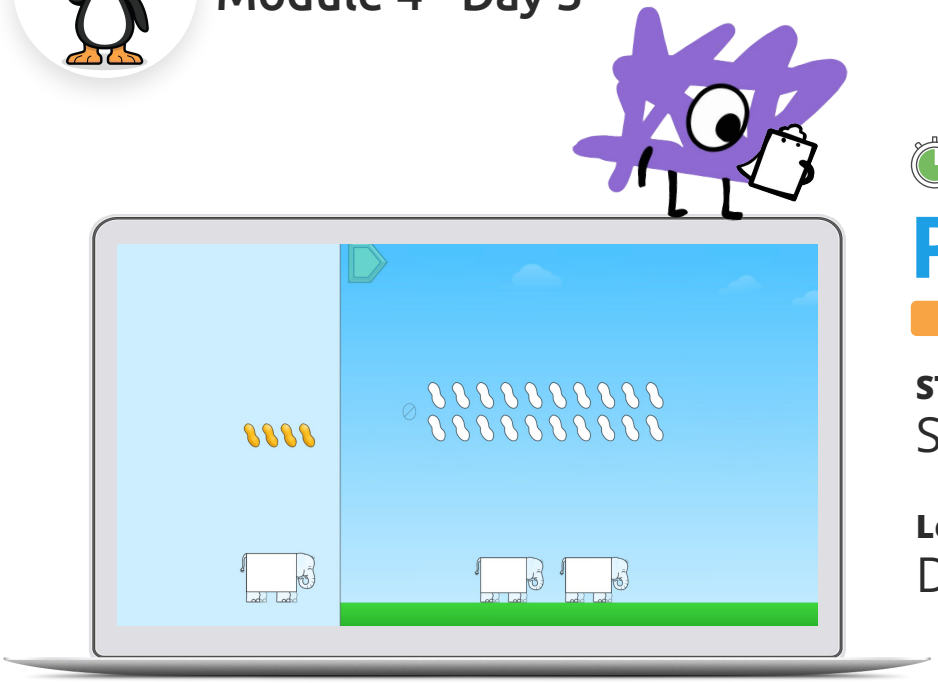
Module 4 - Day 3

Puzzle Talk



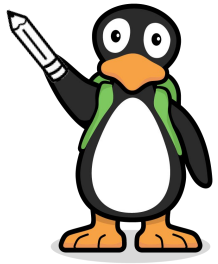
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Select Peanuts > Level 1

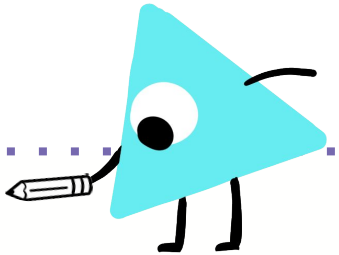
Learning Objective:
Dividing by fraction

Puzzle Link



Module 4 - Day 3

Problem Solving



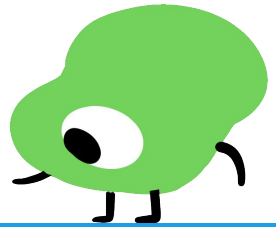
Problem of the Day

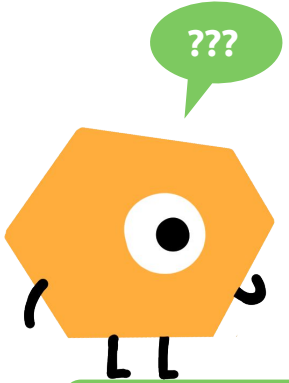
Ibrahim did 1/5 of his homework problems on his bus ride home. He completed 3 problems. How many problems did Ibrahim have for homework?

Module 4 - Day 4

My Thinking Path

Topic: Solving problems involving dividing by fraction





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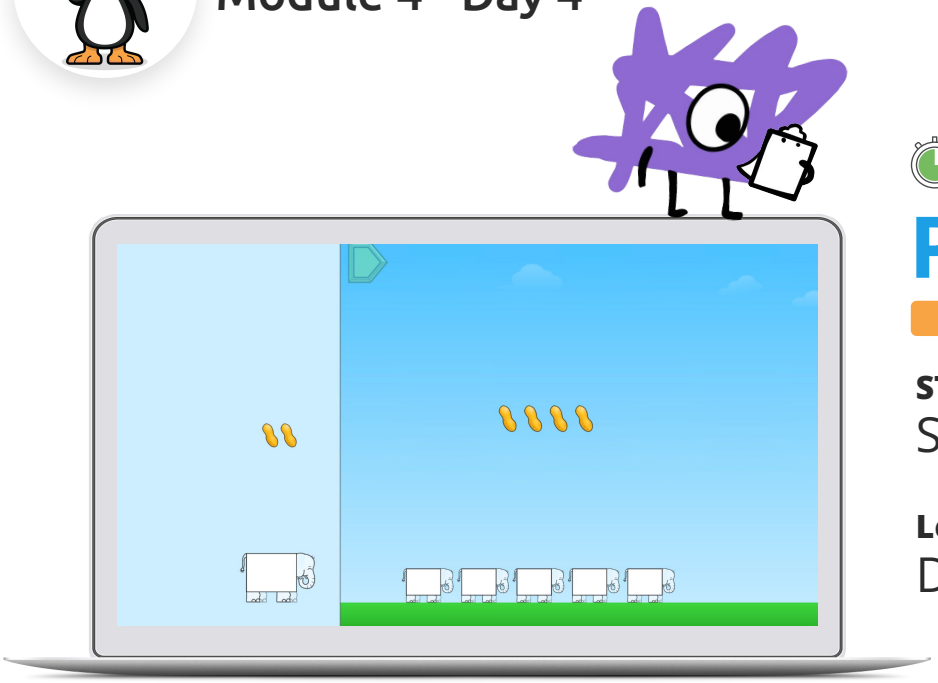
Module 4 - Day 4

Puzzle Talk



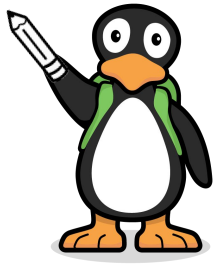
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Select Elephants > Level 1

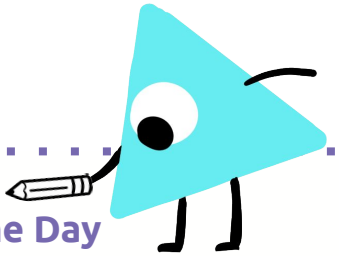
Learning Objective:
Dividing by fraction

Puzzle Link



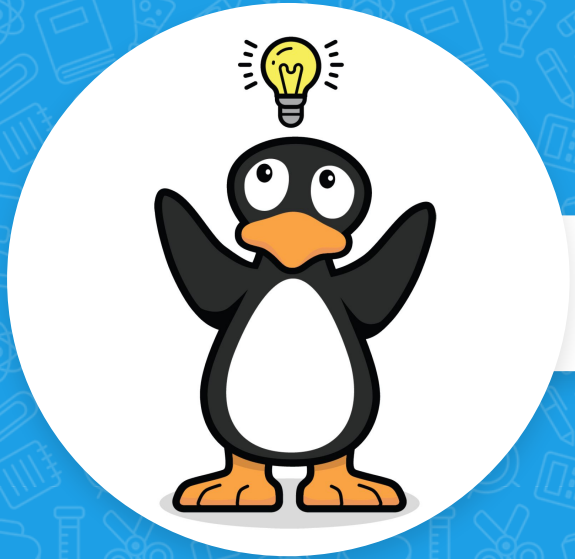
Module 4 - Day 4

Problem Solving



Problem of the Day

Mylo eats a cup of cereal a day. He ate 1/3 of a box in 6 days. How many cups of cereal were in the full box?



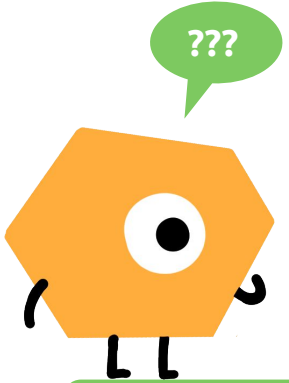
Module 5

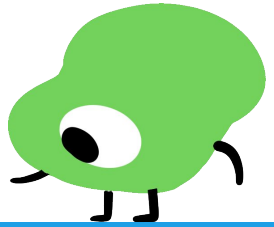
Let’s see math come alive!

Module 5 - Day 1

My Thinking Path

Topic: Solving problems involving dividing by fractions





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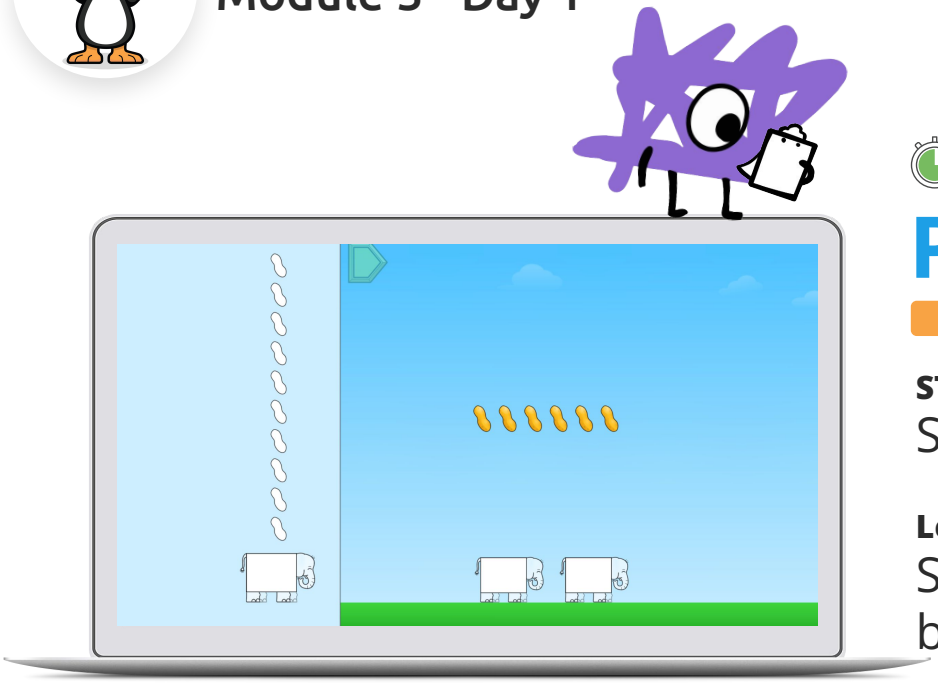
Module 5 - Day 1

Puzzle Talk



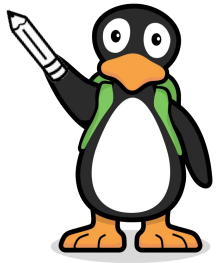
Time for

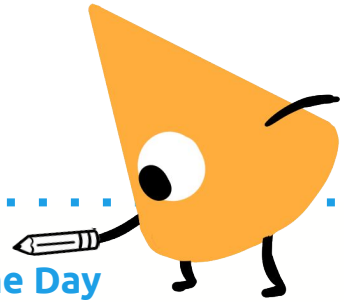
PROBLEM SOLVING!

ST Math Puzzle:
Select Peanuts per Elephant > Level 1

Learning Objective:
Solve problems involving dividing by fractions

Puzzle Link





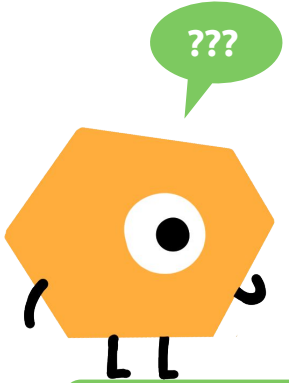
Problem of the Day

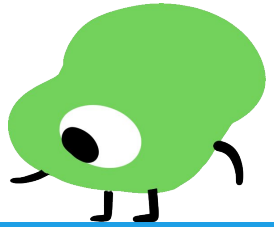
My dog's food comes in 8-pound bags. My dog eats 1/4 of a pound of food each meal. How many meals will one bag of dog food serve?

Module 5 - Day 2

My Thinking Path

Topic: Solve problems involving dividing by fractions





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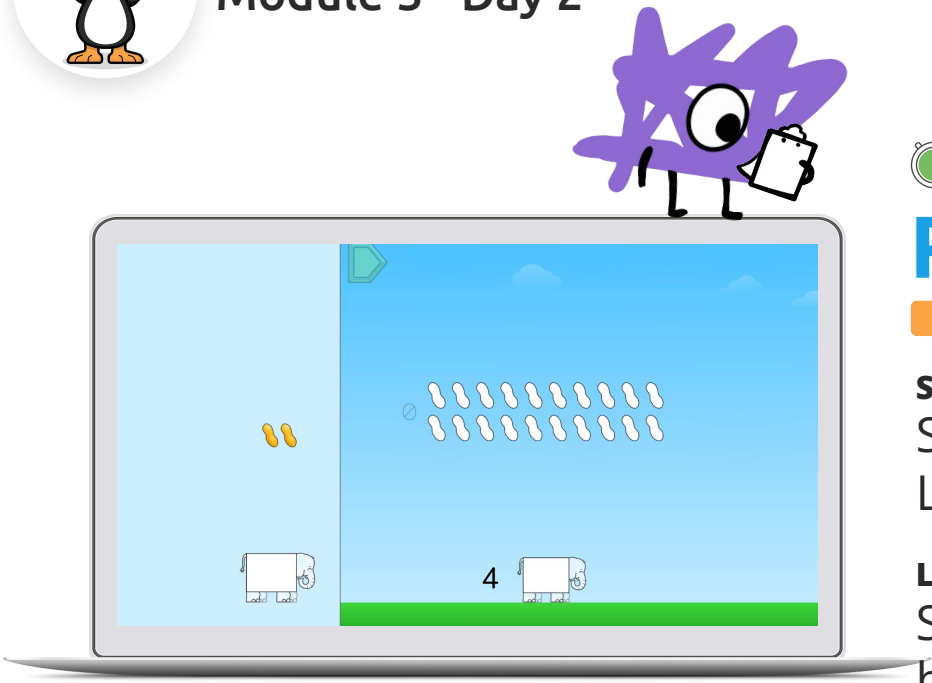
Module 5 - Day 2

Puzzle Talk



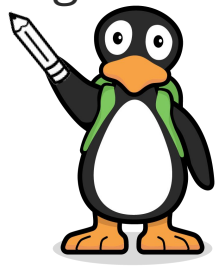
Puzzle Link

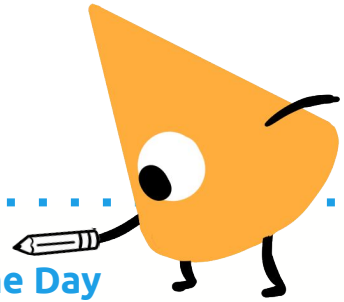
Time for

PROBLEM SOLVING!

ST Math Puzzle:
Select Peanut or Elephant Multiplier > Level 1

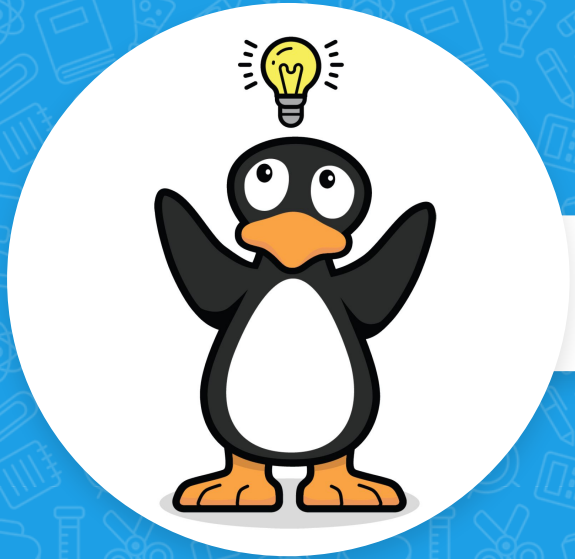
Learning Objective:
Solve problems involving dividing by fractions





Problem of the Day

The art teacher had 6 cups of sparkles for an art project. He gave each student in Ms. Clark's class 1/3 of a cup of sparkles to use. How many students are there in Ms. Clark's class? Write the equation and draw a picture to show how you got your answer.



Reflection Poster

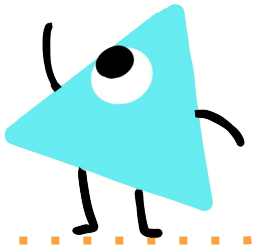
Slides 62-63

Time for

REFLECTION!

LET'S BRAINSTORM

- ★ What math concepts did you learn this summer?
- ★ What new vocabulary did you learn?
- ★ What strategies did you use when you got stuck?
- ★ How did you become a better mathematician?



Time for

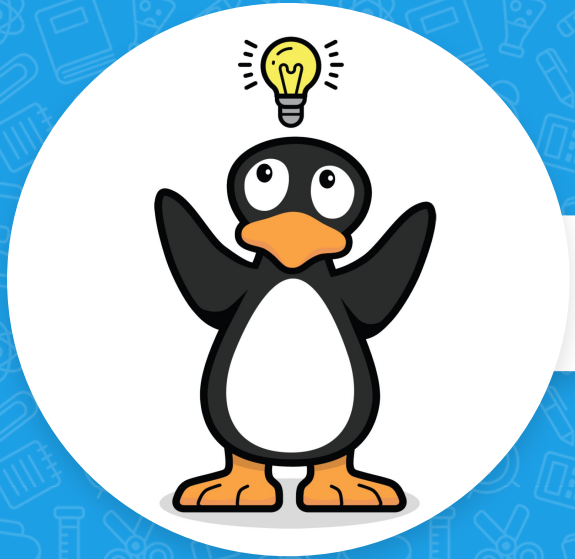
REFLECTION!

DESIGN A REFLECTION POSTER

Share what you know!

- ★ What math concepts did you learn this summer?
- ★ What new vocabulary did you learn?
- ★ What strategies did you use when you got stuck?
- ★ How did you become a better mathematician?

Make your poster
colorful, **interesting** and **informative**.



Mini Math Game Design

Use Slides 65-69 if using the 4-Day Immersion Program

MINI MATH GAME DESIGN

We are going to create a game like the ones you played this summer!

MINI
MATH GAME
DESIGN

Let's Brainstorm!

What are some games you know?

Can you think of how you might put math in the game?

Can you think of a game you would like to make that is like the ones you know?

MINI
MATH GAME
DESIGN

Your New Game

When you make a new game, what math concepts can you include?

___ *addition*
___ *subtraction*
___ *shapes*
___ *money*
___ *puzzles*
___ *time*
___ *measuring*
___ *estimation*
___ *place value*
___ *something else?*

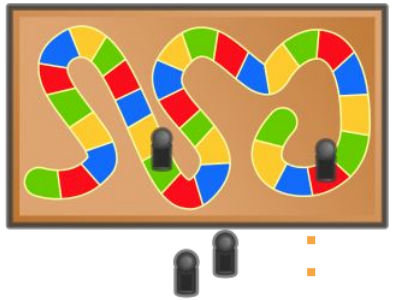
MINI
MATH GAME
DESIGN

Your New Game

Can you make a game to teach or practice a math concept?

- ★ What is your game called?
- ★ How many players can you have?
- ★ What are the directions and rules for your game?

MINI
MATH GAME
DESIGN



Now it's time to make a new game!

Work together to make a game that your friends will want to play.

Learning Showcase and Celebration Slides

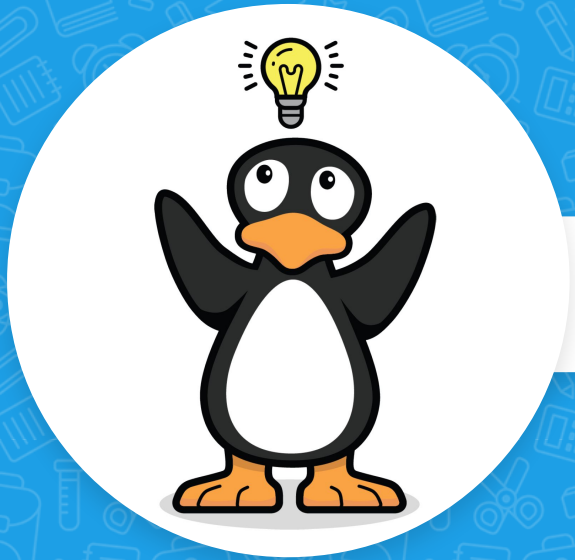
Welcome to

ST Math Immersion's

Learning Showcase & Celebration!

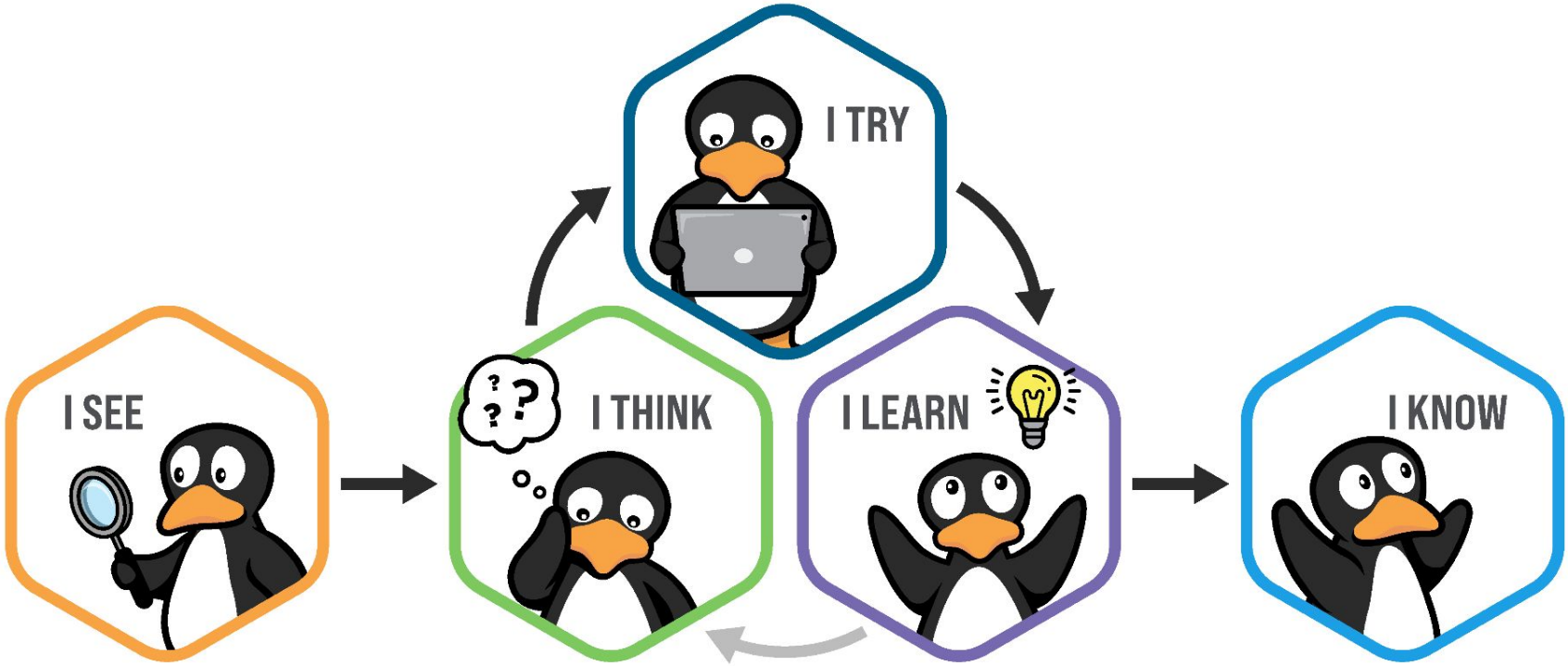
AGENDA (Sample)

10:00 am - Welcome
Gallery Walk of Posters
10:15 am - Presentation
10:30 am - Debriefing Time
11:00 am - Game Time
11:30 am - End Time



Resource

Problem Solving Process



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