



**Growing Mathletes**  
**Facilitator Training**  
**Day 3**  
**In-Person**  
**Summer 2023**



**DAY 3**

## GOOD MORNING!

1. **Launch**
2. **Batting Average Lessons**
3. **Lesson Modeling -**  
Nutrition & Stealing Bases  
(Facilitators Lead!)
4. **Lesson Modeling -** Negro  
League Road Trip
5. **Lesson Modeling -** Strike  
Zone & Fielding  
Percentage
6. **Workshopping -** Launch  
Angle & Throwing Distance

**LUNCH**



# Part 3.1: Launch

## LAUNCH:

### Connect to prior knowledge: Informal Learning Tone Setting

- What do you do to “set the tone”?
- How do you keep your energy up if you are struggling? Do you have some energizing activities in your facilitator back pocket? What about calming activities when things get too exciting?
- What type of learning environment have you noticed supports your youth’s learning?

# Setting the Tone



***Intention:*** Create an informal learning environment that cultivates curiosity, respect, engagement, and a growth mindset in all members of the group, including facilitators

**Space utilization:** Cluster desks / group tables; Set up tables in a semi-circle or U-shape; Encourage movement away from the tables when possible

**Multimedia:** Play music, use videos, TikTok, GIFs

## **Movement**

- **Energizers:** [Here are 19 examples](#) you can draw from, and [one video example of one called Sport Gallery](#).
- **Question answering / sharing thoughts can include movement too!**
- **Mini dance parties / shake it out**

Link to full document: <https://docs.google.com/document/d/1wEV12HkSXlqCU1gijO4L1ZftWEoYCvjcGW13Q32qzAM/edit>





## Reflection:

- Thoughts?
- Questions?
- Challenge:
  - chooses 1+ strategy to take on when you practice facilitating with us
  - identify 1+ strategy you will commit to implementing with the youth





# Part 3.2a: Lesson - Introduction to Batting Average





# **Intro to Batting Average**

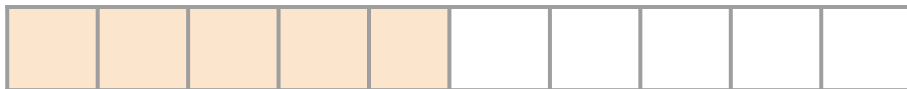
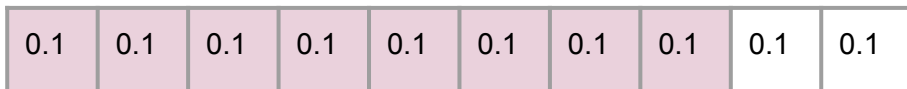
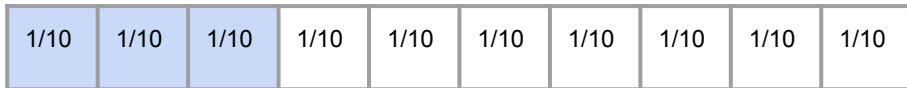
## **Factions, Decimals, Percents**

### **Key Concepts**

# Math Strategies for Fractions/Decimals

Facilitators  
Only

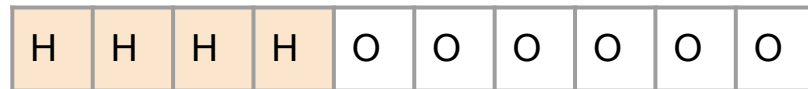
Bar Models divided into 10 equal parts to show 10ths in fraction and decimal form.



5 out of 10 equal parts, or  $5/10$  of the whole.  $5/10$  is one-half.

How many equal parts are there?  
Since there are 10 equal parts, each part is  $1/10$  or 0.1.

You can use the bar model to show rolling the dice 10 times.  
Each square represents 1 roll. Record the outcome of each roll - hit or out.



What fraction of your 10 rolls were hits?  
Place all your hits together to see that 4 of the 10 rolls, or  $4/10$ , were hits!

# Math Strategies for Fractions/Decimals

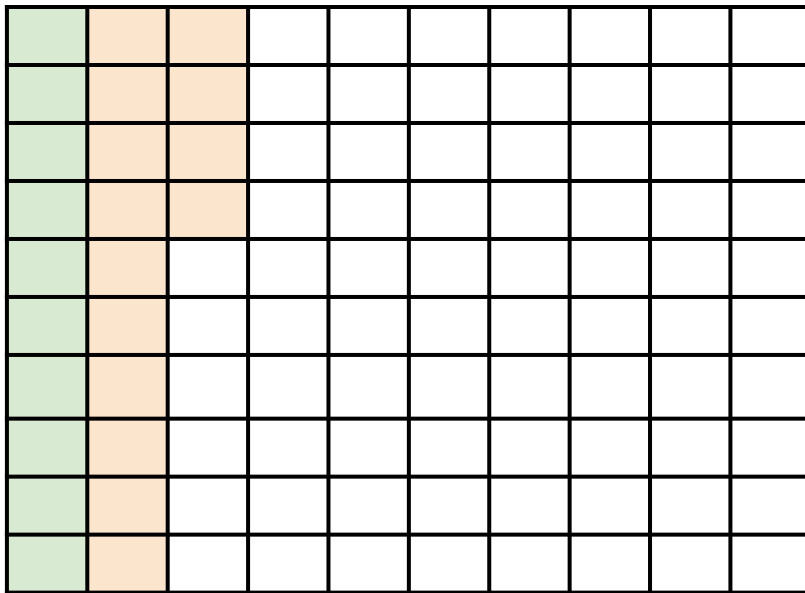
Facilitators  
Only

This 10 by 10 grid has 100 equal parts. We use this grid to show fractions, decimals and percents.

Each row and each column has 10 squares. 10 out of 100, or 10/100.

Since there are 10 rows, each row is 1/10 or 0.1.  
Since there are 10 columns, each column is 1/10 or 0.1.

$$\frac{24}{100} = 0.24 = 24\%$$



Since there are 100 squares, each square represents 1 out of 100, or 1/100 or 1% of the grid.

Since there are 10 rows, each row is 10%

Since there are 10 columns, each column is 10%

# Intro to Batting Average Discussion

- What do you think are the key ideas for this lesson (math, baseball, growth mindset)? How do different parts of this lesson support youth understanding of the key ideas?
- What do you expect to be exciting for your youth? What might be challenging or less engaging?
- Do you have any initial thoughts about how you might adapt this lesson for your own club?



# Part 3.2b:

## Lesson - Modeling Batting Average

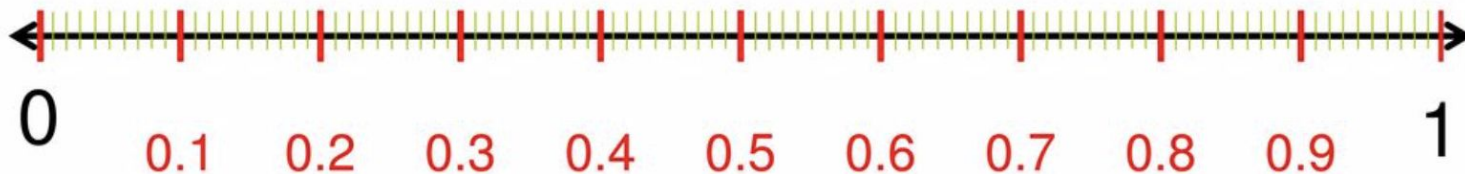
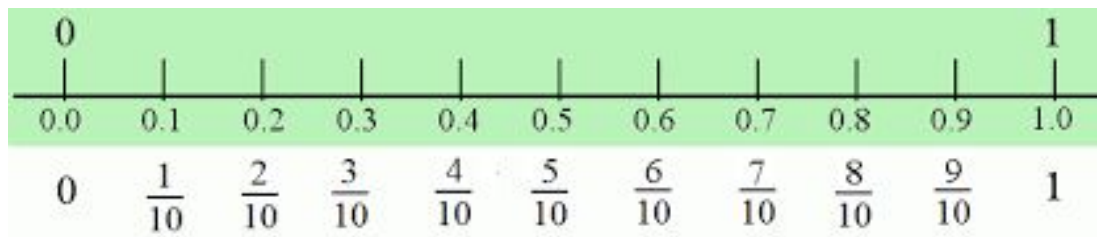


# Modeling Batting Average

Line Plots

Key Concepts

# Number Lines as Tools to Represent Fractions and Decimals



# Creating Line Plots to Represent Outcomes .....

## Start with a Blank Number Line



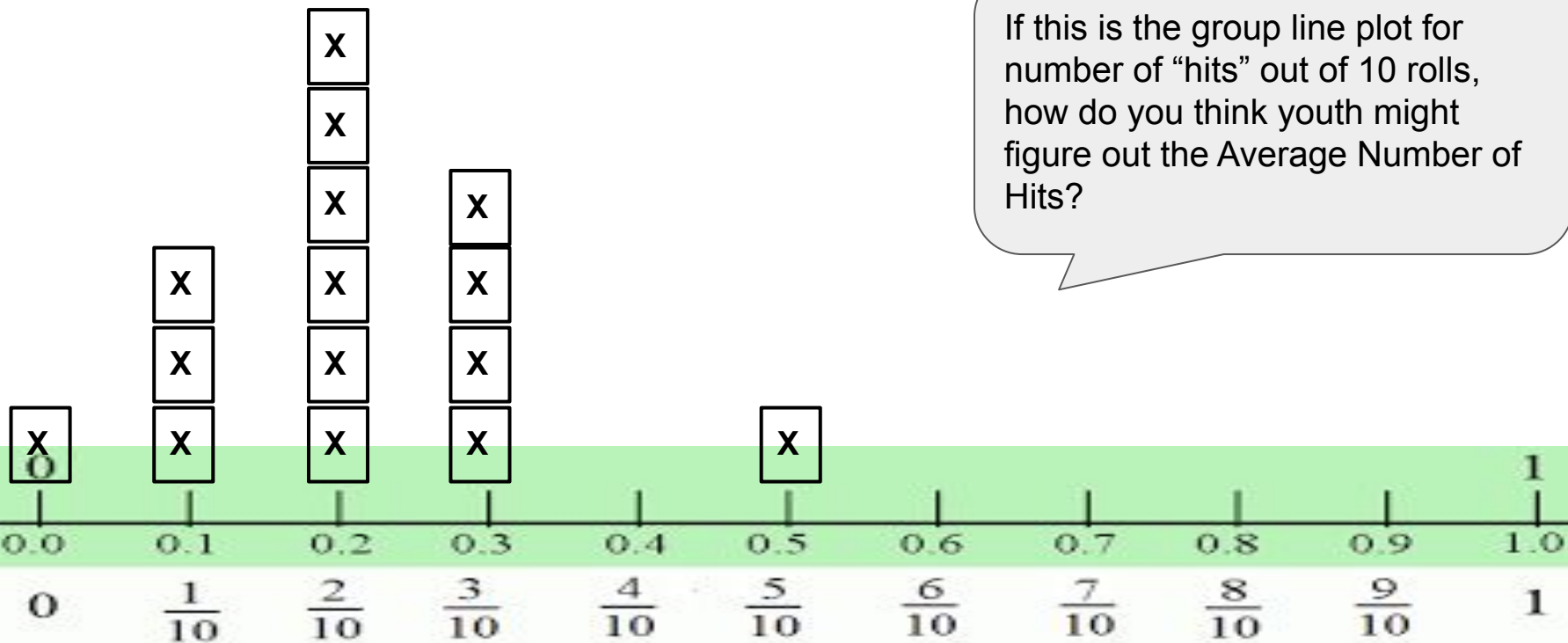
Ask youth to determine the labels.

What is the lowest value?  
What is the highest value?

How do we label each tick mark on the number line?



# Calculating the AVERAGE Number of Hits



If this is the group line plot for number of “hits” out of 10 rolls, how do you think youth might figure out the Average Number of Hits?

# Modeling Batting Average Discussion

- What do you think are the key ideas for this lesson (math, baseball, growth mindset)? How do different parts of this lesson support youth understanding of the key ideas?
- What do you expect to be exciting for your youth? What might be challenging or less engaging?
- Do you have any initial thoughts about how you might adapt this lesson for your own club?



# BREAK

**REMINDER: Prep for Nutrition and  
Stealing Bases;  
Order lunch**



# Part 3.3: Facilitators Lead Lessons: Nutrition and Stealing Bases



# Part 3.3a: Lesson - Nutrition

- What do you think are the key ideas for this lesson (math, baseball, growth mindset)? How do different parts of this lesson support youth understanding of the key ideas?
- What do you expect to be exciting for your youth? What might be challenging or less engaging?
- Do you have any initial thoughts about how you might adapt this lesson for your own club?



# Part 3.3b:

## Lesson - Stealing Bases

# Lesson Discussion

- What do you think are the key ideas for this lesson (math, baseball, growth mindset)? How do different parts of this lesson support youth understanding of the key ideas?
- What do you expect to be exciting for your youth? What might be challenging or less engaging?
- Do you have any initial thoughts about how you might adapt this lesson for your own club?





# LUNCH



# **Part 3.3**

## **Monday Week 2**

### **Lesson:**

# **Negro Leagues Road Trip**

- What do you think are the key ideas for this lesson (math, baseball, growth mindset)? How do different parts of this lesson support youth understanding of the key ideas?
- What do you expect to be exciting for your youth? What might be challenging or less engaging?
- Do you have any initial thoughts about how you might adapt this lesson for your own club?



# Part 3.4a: Lesson - Strike Zone

# Lesson Discussion

- What do you think are the key ideas for this lesson (math, baseball, growth mindset)? How do different parts of this lesson support youth understanding of the key ideas?
- What do you expect to be exciting for your youth? What might be challenging or less engaging?
- Do you have any initial thoughts about how you might adapt this lesson for your own club?



# Part 3.4b:

# Lesson - Fielding Percentage

# Lesson Discussion

- What do you think are the key ideas for this lesson (math, baseball, growth mindset)? How do different parts of this lesson support youth understanding of the key ideas?
- What do you expect to be exciting for your youth? What might be challenging or less engaging?
- Do you have any initial thoughts about how you might adapt this lesson for your own club?



**BREAK**





# Part 3.5: Workshop Lessons: Launch Angle & Throwing Distance



# Workshopping

In pairs, select LAUNCH ANGLE or THROWING DISTANCE

Review lesson materials:

- Facilitator guide
- Youth slides
- Materials

Discuss ways to implement at your site.

Prep for modeling lesson on Day 4!



**END of Day 3!**