

The background of the entire page is a stylized illustration of the Philadelphia skyline. The Comcast Center is the most prominent building in the center. To its left is the University City skyline, including the PNC Tower. To the right, there are other skyscrapers. In the foreground, a group of six children are standing on a street, looking towards the skyline. From left to right: a small child in a red hat, a girl in a blue coat, a boy in a green jacket, a girl in a red cape, a boy in a blue jacket, and a boy in a red cape and blue pants. A yellow taxi is parked on the right side of the street. The sky is a mix of blue and orange, suggesting a sunset or sunrise. The ClassHero logo is at the top center.

# ClassHero

THE MATH ADVENTURES OF

# Philadelphia's ClassHeroes

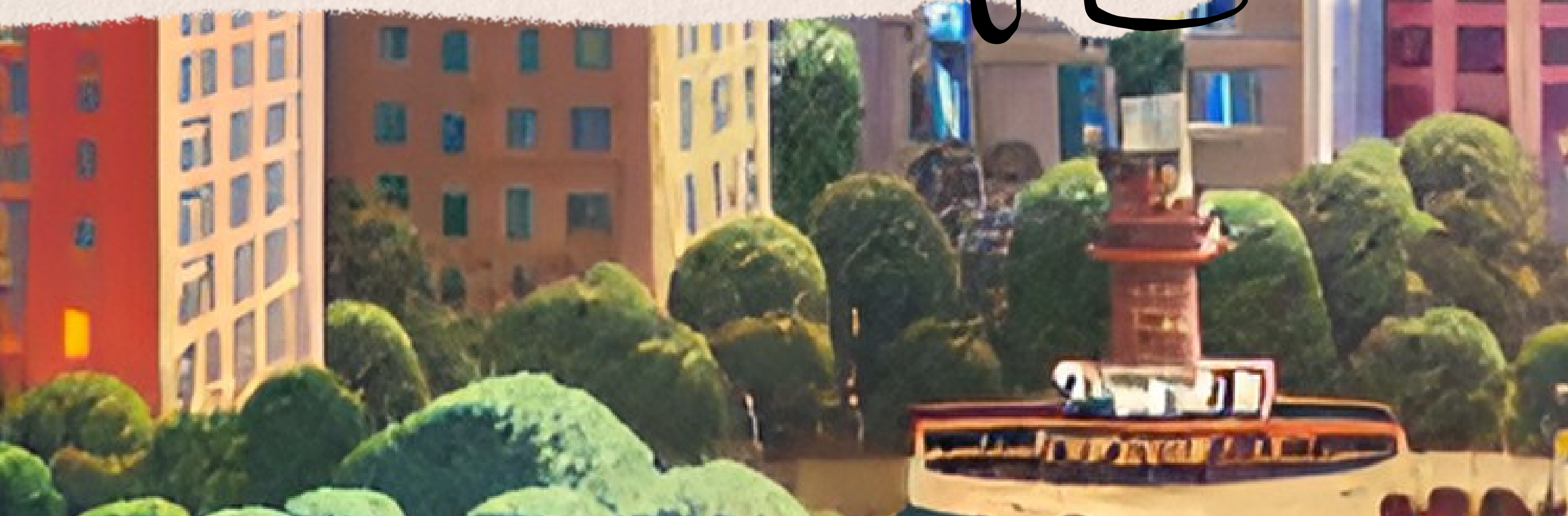
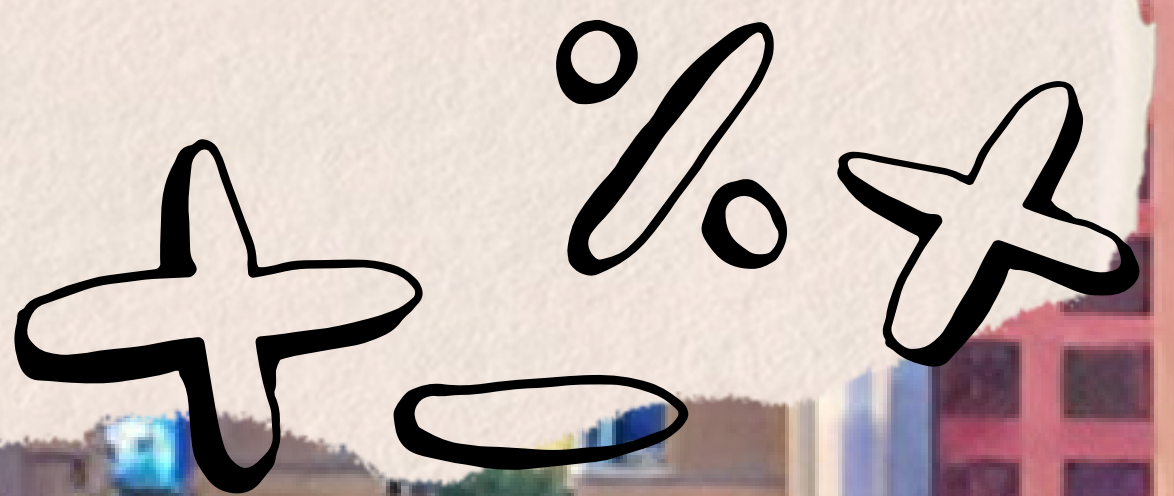
TEACHER GUIDE | 4TH GRADE



Welcome to the teacher guide for 4th grade math in Philadelphia! This guide is based on your district's mathematics scope and sequence and provides engaging math missions tied to specific skills.

Each mission aligns with ClassHero assignments, helping students practice and reinforce skills. Use these missions for an encouraging, community-based experience with ClassHero. Students connect with local and regional heroes through Philadelphia HeroBadges—print them from your teacher account!

HeroBadges foster inclusivity, equity, and positivity, allowing students to see themselves in the curriculum. Embrace this guide for a dynamic learning experience that celebrates Philadelphia and keeps students excited about math all year.





In the vibrant city of Philadelphia, an extraordinary team of math-savvy kids called the Math Crusaders have taken on a mission to use their super math powers to solve challenges and safeguard their beloved city.

Their goal is to discover the secret location of a hidden treasure that will bring prosperity and happiness to Philadelphia for generations to come!

To reach their objective, the Math Crusaders must embark on a series of action-packed missions to help the citizens of Philadelphia and piece together fragments of a mystical map that will guide them to the treasure!







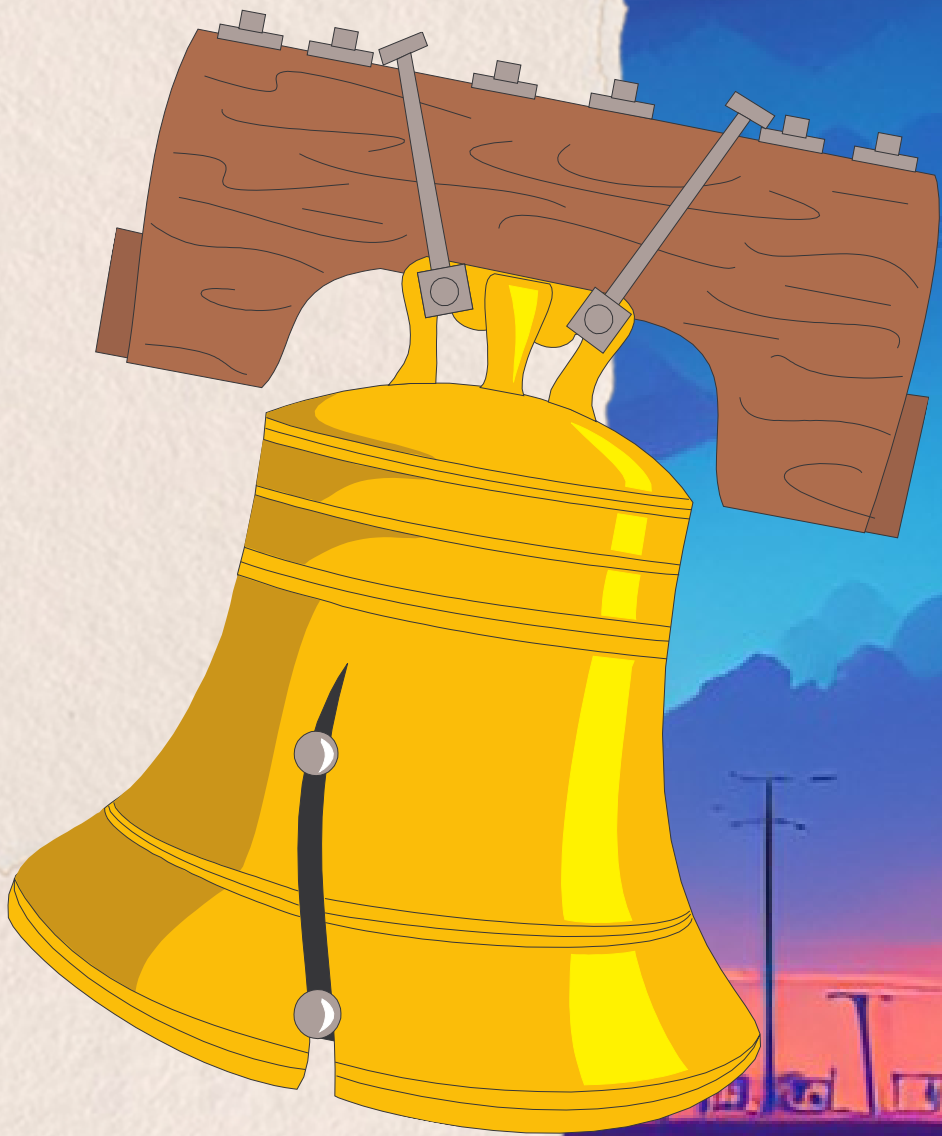
NUMBER & OPERATIONS IN BASE TEN

# THE GREAT LIBERTY BELL MISSION

Level 1: Multi-digit place value

The Math Crusaders receive a cryptic message encoded using multi-digit place values. They must crack the code to uncover a sinister plan to snatch the historic Liberty Bell!

Assign 1.1 in ClassHero





NUMBER & OPERATIONS IN BASE TEN

# ***THE GREAT LIBERTY BELL MISSION***

Level 2: Fluently add and subtract within 1 million

Description: Channeling their fluency in addition and subtraction, the Math Crusaders must swiftly calculate the thief's speed and direction, setting a clever trap to apprehend the wrongdoer.

Assign 1.2 in ClassHero





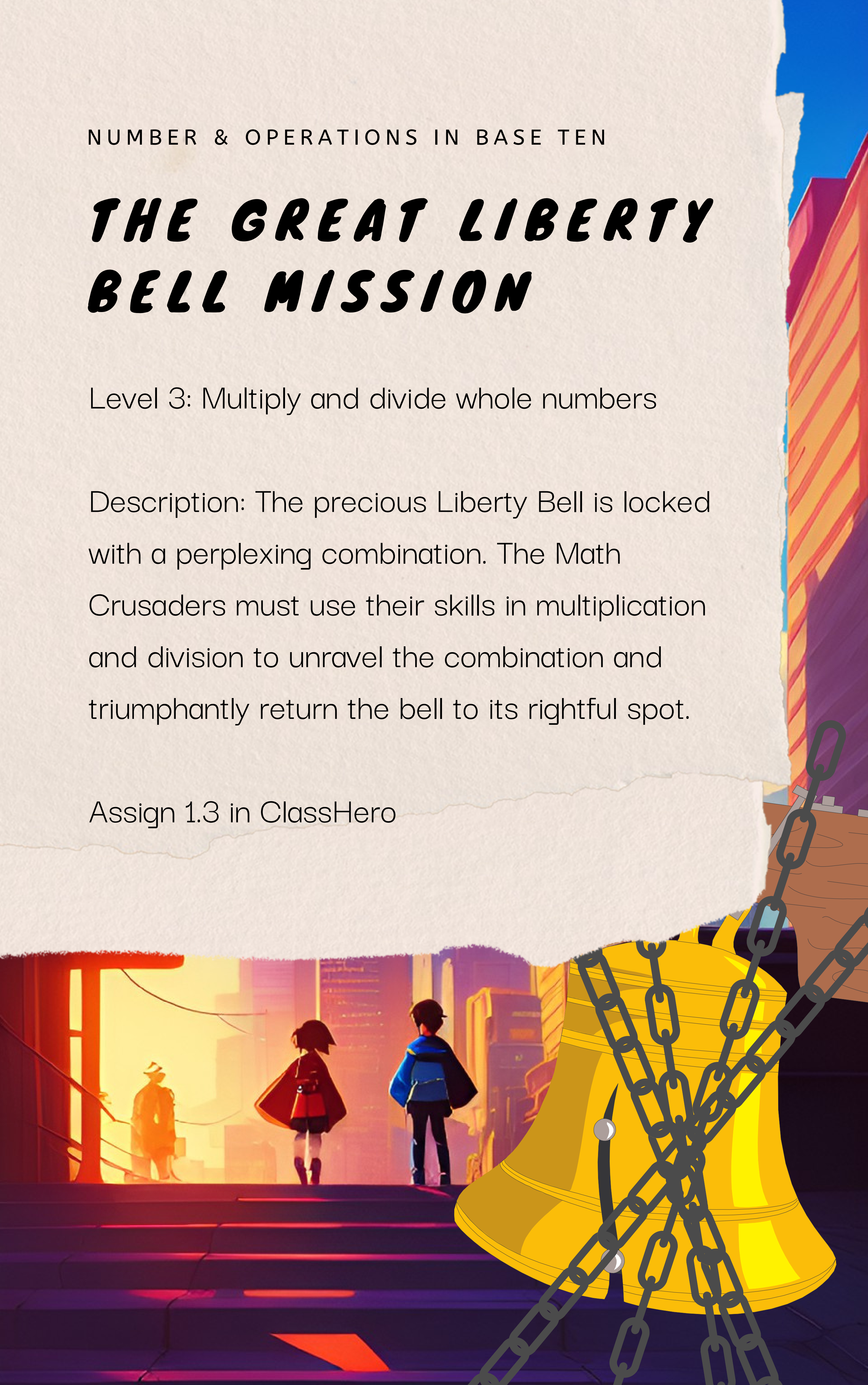
NUMBER & OPERATIONS IN BASE TEN

# ***THE GREAT LIBERTY BELL MISSION***

Level 3: Multiply and divide whole numbers

Description: The precious Liberty Bell is locked with a perplexing combination. The Math Crusaders must use their skills in multiplication and division to unravel the combination and triumphantly return the bell to its rightful spot.

Assign 1.3 in ClassHero







MISSION 2: OPERATIONS &  
ALGEBRAIC THINKING

# ***BOATHOUSE ROW'S DAZZLING DISPLAY***

Level 1: Use the four operations with whole numbers to solve problems

Description: The Math Crusaders calculate the electricity needed to illuminate the iconic Boathouse Row, using all four operations with whole numbers to generate a stunning light show.

Assign 2.1 in ClassHero





MISSION 3: NUMBER & OPERATIONS  
WITH FRACTIONS

# ***THE GREAT ART HEIST ADVENTURE***



Level 1: Understanding fractions

Description: Several priceless paintings vanish from the Philadelphia Museum of Art. The Math Crusaders wield their understanding of fractions to decipher cryptic clues left behind by the cunning thief.

Assign 3.1 in ClassHero







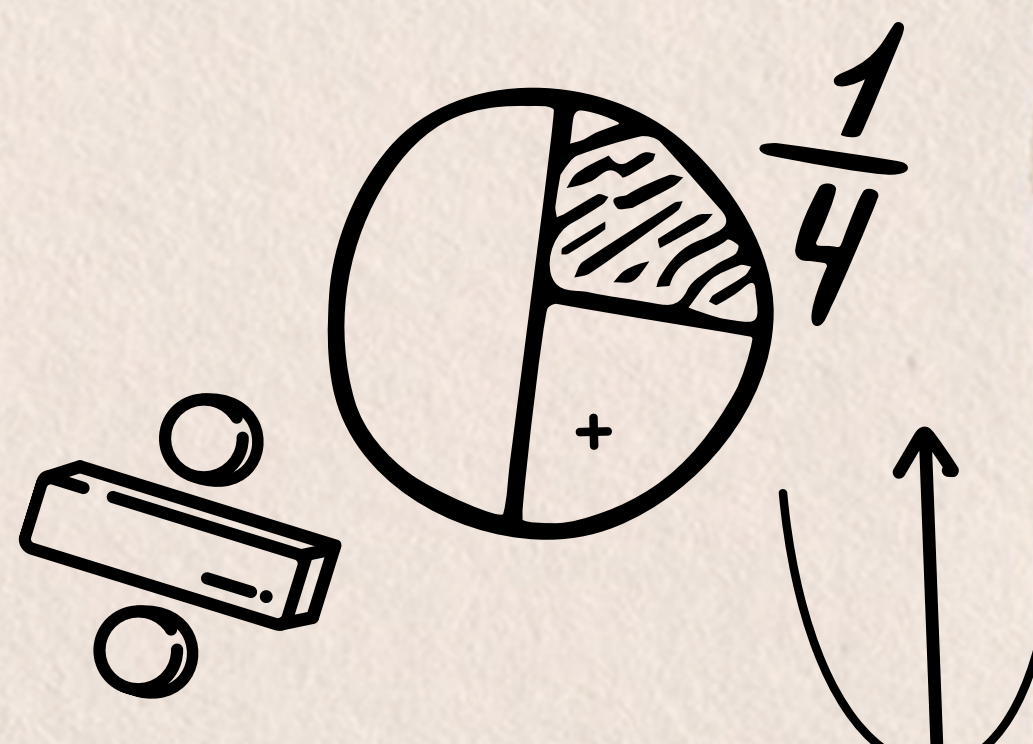
MISSION 3: NUMBER & OPERATIONS  
WITH FRACTIONS

# ***THE GREAT ART HEIST ADVENTURE***

Level 2: Add and subtract fractions with like denominators

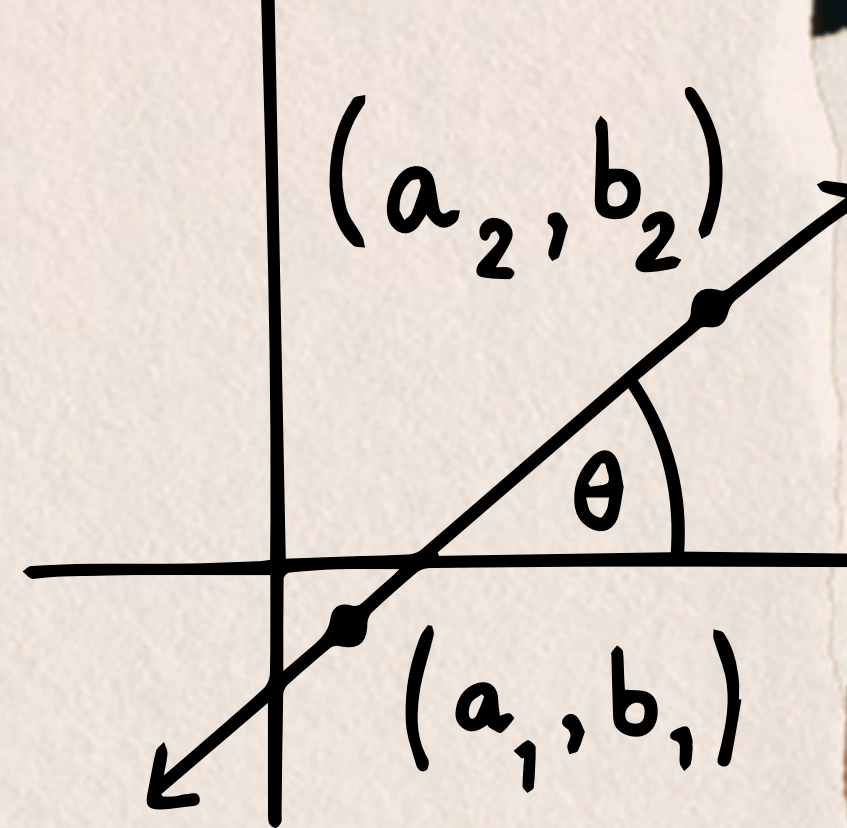
Description: Hot on the trail of the culprit, the Math Crusaders add and subtract fractions with like denominators to stay on the right path and outsmart the art thief.

Assign 3.2 in ClassHero





MISSION 3: NUMBER & OPERATIONS  
WITH FRACTIONS



# ***THE GREAT ART HEIST ADVENTURE***

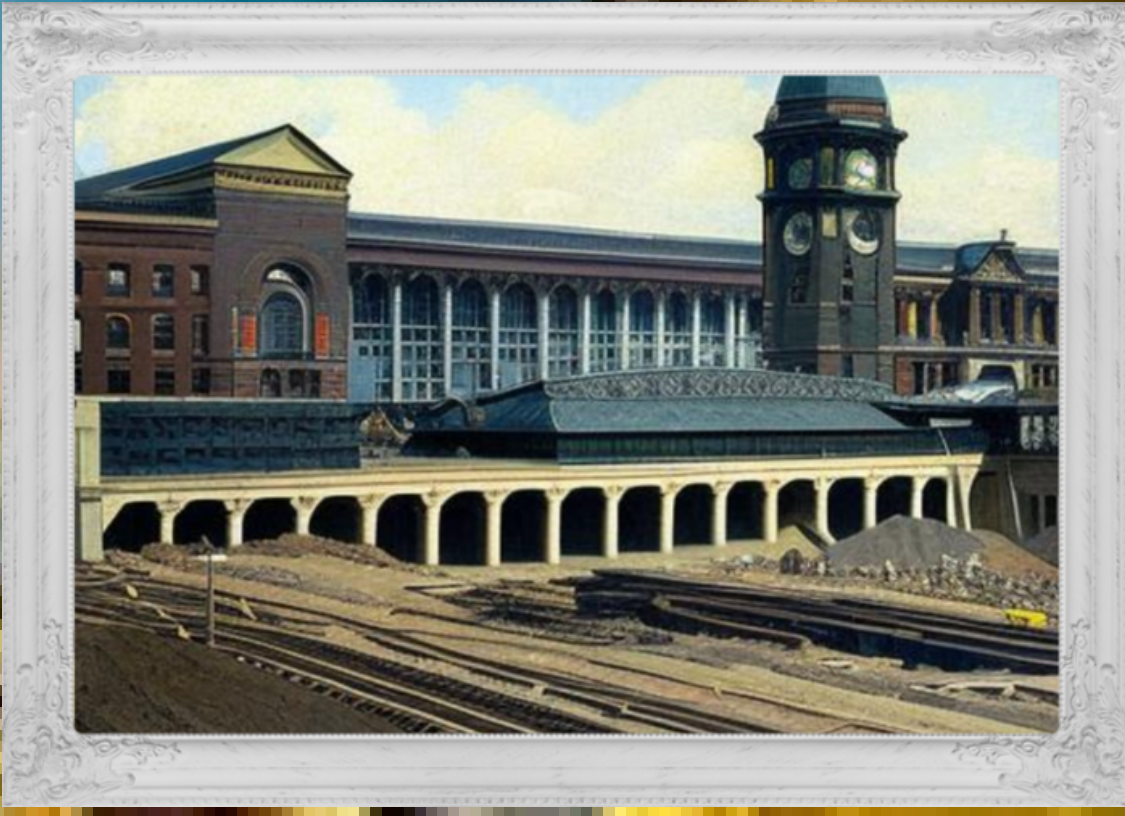
Level 3 Multiplying Fractions

Description: The Math Crusaders tackle a series of mind-boggling algebraic equations involving multiplying fractions to pinpoint the thief's secret hideout and recover the stolen masterpieces.

Assign 3.3 in ClassHero







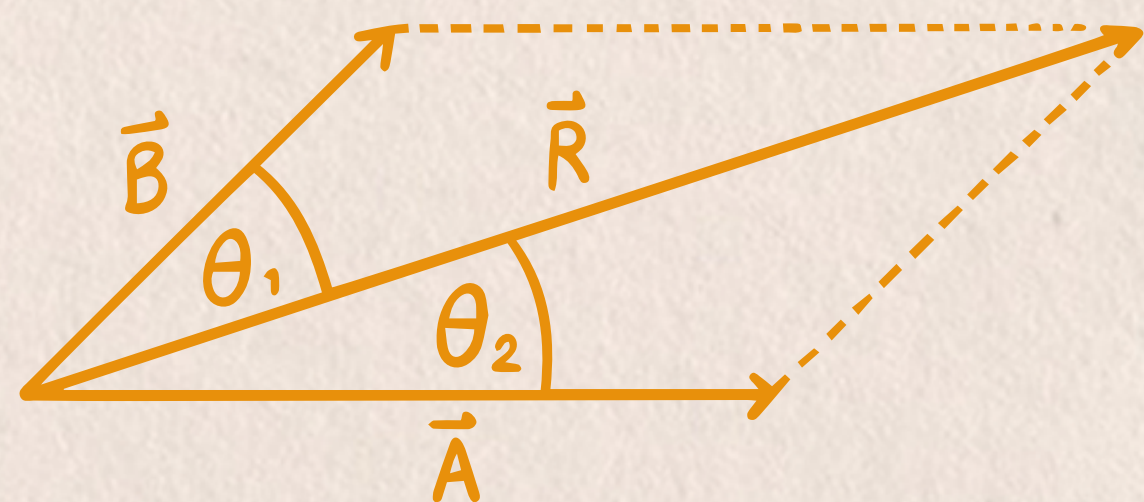
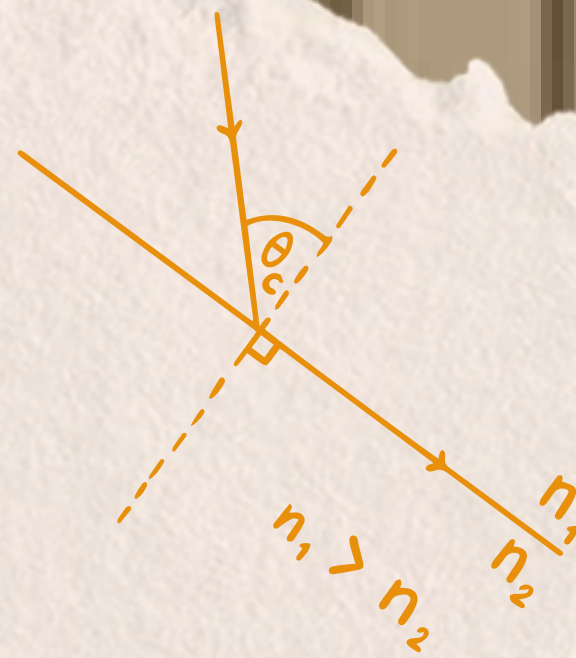
MISSION 3: NUMBER & OPERATIONS  
WITH FRACTIONS

# ***THE GREAT ART HEIST ADVENTURE***

Level 4: Decimal Notation for Fractions

Description: Using decimal notation for fractions, the Math Crusaders must calculate the area and perimeter of the museum walls to meticulously restore the recovered painting to their original places.

Assign 3.4 in ClassHero





## MISSION 4: MEASUREMENT & DATA

# ***CHEERING ON THE HOME TEAM***

### Level 1: Measurement Problems

Description: The Math Crusaders lend a hand at the stadium's snack stand, calculating the number of hot dogs, pretzels, and sodas needed to feed the roaring crowd at a Philadelphia Phillies game using their expertise in measurement problems.

Assign 4.1 in ClassHero







MISSION 4: MEASUREMENT & DATA

## ***CHEERING ON THE HOME TEAM***

Level 2: Represent and interpret data

Description: The Math Crusaders join forces with the team's pitcher, employing their ability to represent and interpret data to predict and outmaneuver the opposing team's strategies.

Assign 4.2 in ClassHero





# CHEERING ON THE HOME TEAM

Organizing a victory parade for the triumphant Phillies, the Math Crusaders use geometric measurement to create a spectacular parade route that all fans can revel in.

## Assign 4.3 in ClassHero







MISSION 5: GEOMETRY

# ***THE GRAND PHILLY TREASURE***

Level 1: Geometry

Description: With all fragments of the mystical map collected, the Math Crusaders must harness their knowledge of geometry to decipher the final riddles and unlock the hidden treasure, ensuring Philadelphia's prosperity for generations to come.

Assign 5.1 in ClassHero



Congratulations, ClassHeroes!

As the Math Crusaders unveil the hidden treasure, their thrilling journey comes to a triumphant end. They've protected their city and inspired its citizens, showing that with teamwork, determination, and math skills, anything is possible.

As the sun sets over Philadelphia, our heroes stand ready for new challenges, safeguarding the city one math problem at a time.

