

MATH

4th Grade



THE CASE OF THE MISSING VALENTINES ESCAPE ROOM

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Solve the Valentine's Day Mystery!

Students won't realize they are practicing important math skills! They will be immersed in the storytelling and our original videos as they complete math challenges.

Dear Student,

Where did the valentines go? On February 14th, when the kids in Ms. Heart's class came back from lunch, they found empty boxes where their handcrafted cards had been stuffed.

As an amateur sleuth, will you rule out the suspects, one by one, to solve the Valentine's Day Mystery?

Suspects to investigate:

1. Hall monitor
2. Prankster
3. Influencers
4. Quiet kid

After each challenge, add the clue to your investigating journal!

Sincerely, *Ms. Heart's Class*

Learn more!



4 Mathematics Challenges

- Challenges focused on important math skills
- Each challenge takes about 20-30 minutes

Challenge #1

- Solve each operations problem.
- Record answers on your brochure.
- Check your answers in the Valentine Decoder.
- Add the clue to the journal.
- Scan the QR code in the corner of the next page.
- Move on to the challenge #2.

1. The hall monitor counted the number of students arriving to school on Monday morning. Twenty-five students arrived by car. On Tuesday morning she counted three times as many students arriving by car. Find the multiplication equation that represents the math for this problem.

- $25 + 25 = 50$
- $25 \times 3 = 75$

2. The hall monitor records the number of students arriving to school by bus each day. On Friday there were 188 students riding the bus which is four times as many students who rode the bus on Thursday. How many students rode the bus on Thursday?

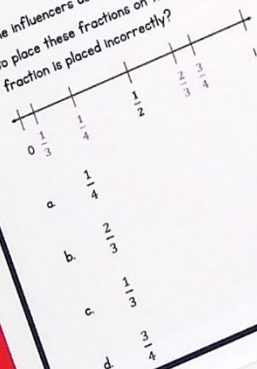
- 45 students
- 46 students
- 47 students
- 48 students

3. The hall monitor counted the number of students arriving to school on Wednesday. She counted 120 students. How many students arrived on Thursday?

Challenge #3

- Solve each fraction or decimal problem.
- Record answers on your brochure.
- Check your answers in the Valentine Decoder.
- Add the clue to the journal.
- Scan the QR code in the corner of the next page.
- Move on to the challenge #4.

2. The influencers used the benchmark fraction to place these fractions on the number line. Which fraction is placed incorrectly?



1. The influencers cut out 100 hearts to decorate the classroom. One-quarter of the hearts were pink, and one-half were red. The rest were purple. How many hearts were purple?

- 75 hearts
- 25 hearts
- 33 hearts
- 10 hearts

3. The influencers made popcorn for their afterschool meeting. Each person was given $\frac{5}{6}$ of a cup of popcorn to eat at the meeting. There were 8 influencers at the meeting. Which mixed number represents the number of cups of popcorn they made for the meeting?

- $6\frac{1}{6}$ cups of popcorn
- $5\frac{2}{3}$ cups of popcorn
- $6\frac{1}{3}$ cups of popcorn
- $6\frac{2}{3}$ cups of popcorn

Challenge #2

- Solve each place value problem.
- Record answers on your brochure.
- Check your answers in the Valentine Decoder.
- Add the clue to the journal.
- Scan the QR code in the corner of the next page.
- Move on to the challenge #3.

1. The prankster scattered pink and red paper hearts throughout the school. The students collected them and put them in a bin in the office. Ms. Heart asked you to find the correct written form of the number.

Numeral	Name	Expanded Form
2,802		$2000 + 800 + 2$

two thousand eight hundred two
two thousands, eight hundreds, and two
ones
two thousand eighty-two
thousand eight hundred twenty

2. The prankster sorted chocolate candies by type into two piles. There were 3,198 pieces of dark chocolate and 3,189 pieces of milk chocolate. Find the response that correctly compares the two numbers.

- $3,189 = 3,198$
- $3,189 > 3,198$
- $3,198 < 3,189$
- $3,198 > 3,189$

3. Help the prankster round the total number of chocolates he had in his two piles to the nearest hundred.

3,198 pieces of dark chocolate
3,189 pieces of milk chocolate

- 6,300 chocolates
- 6,400 chocolates
- 6,500 chocolates
- 6,390 chocolates

Learn more!



4 Mathematics Challenges

The school collected pennies and dimes to purchase socks for the homeless shelter on Valentine's Day. On Monday, you brought 8 dimes and 4 pennies. Find the statement that is not true about the value of the money you brought on Monday.

- The value of your dimes is $\frac{80}{100}$
- The value of your pennies is $\frac{4}{100}$
- The value of your pennies is $\frac{4}{10}$
- The total value of the money you brought is $\frac{84}{100}$

Ms. Hearts' students counted the dimes and pennies collected for the homeless shelter on Thursday and Friday. Thursday they collected 12 dimes and 15 pennies. Friday they collected 10 dimes and 12 pennies. How much money did they collect in total?

- One pair of socks cost \$1.75. Where will the number fall on the number line?



- It is located three-fourths of the way between \$1.00 and \$2.00.
- It is located halfway between \$1.00 and \$2.00.
- It is located one-quarter of the way between \$1.00 and \$2.00.
- It would not be located on the number line.

Challenge #4



- Solve each word problem.
- Record answers on your brochure.
- Check your answers in the Valentine Decoder.
- Add the clue to the journal.
- Scan the QR code in the corner of the next page.
- Move on to the challenge #4.

- The quiet kid used an area model to multiply and check his answer to question 1. He got the wrong answer. What mistake did he make?

	200	70	3
10	2,000	700	30
5	1,000	350	15

$$2,000 + 700 + 30 = 2,703$$

$$1,000 + 350 + 15 = 1,365$$

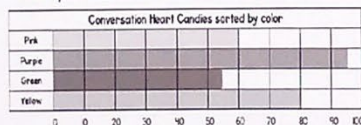
$$2,703 + 1,365 = 4,068$$

- He multiplied 10×200 incorrectly.
- He wrote 2,703 instead of 2,730 before he added.
- He added 2,703 and 1,365 incorrectly.
- He wrote 1,365 instead of 1,375 before he added.

- The quiet kid brought 8 packages of silver-wrapped chocolates and 7 packages of red-wrapped chocolates share at school. Each package had 273 candies in it. First he multiplied to find the number of each color of wrapped chocolates. Then, he added the two numbers together to find the sum. Find the correct answer:

- $2,186 \text{ silver} + 1,911 \text{ red} = 4,097$
- $2,184 \text{ silver} + 1,901 \text{ red} = 4,085$
- $2,184 \text{ silver} + 1,911 \text{ red} = 4,095$
- $2,186 \text{ silver} + 1,901 \text{ red} = 4,087$

- Ms. Heart shared a math project using Conversation Hearts. The bar graph shows data from all the heart candies counted from your class. Find the statement that is not true.



- The total number of candy hearts is 290.
- There are 20 more yellow candy hearts than pink candy hearts.
- There are 25 less green hearts than yellow candy hearts.
- There are 40 less purple candy hearts than green candy hearts.

- The prankster placed 100 red one-inch cubes side by side across the back hallway. The cubes fit exactly from one side of the hallway to the other. How many feet wide is the hallway?

- 8 feet 4 inches
- 8 feet 3 inches
- 8 feet 6 inches
- 8 feet

- Mr. White made fruit punch to share with his students on Valentine's Day. He filled four 2-liter bottles to bring the punch to school. How many milliliters of punch did Mr. White bring to school?

- 800 milliliters
- 8000 milliliters
- 4000 milliliters
- 400 milliliters

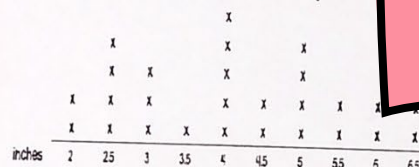


Scan the QR code or click [here](#) to view the video.

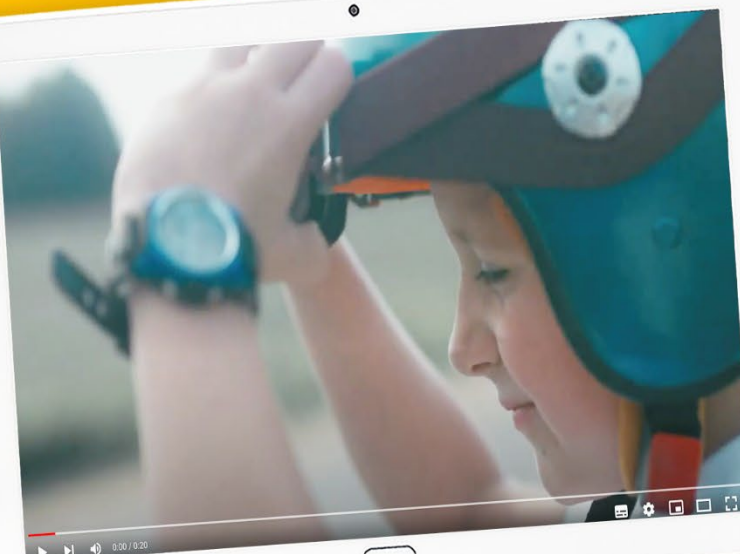


- Ms. Heart sorted the cards your class made by their size. She displayed the measurements on a line plot. Read the help you find the statement that is not true.

Valentine's Day Cards sorted by size.



- The difference in size between the largest and smallest card is 4.5 inches.
- There were 29 Valentine's Day cards made by your class.
- There are four sizes that have the same number of cards made.
- The greatest number of cards made is the 5-inch card.



- Themed videos integrated throughout the Escape Room to keep kids engaged.

- Students work in groups, partners, or independently.

Learn more!



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- a. $25 + 25 = 50$
- b. $25 \times 3 = 75$
- c. $2 \times 25 = 50$
- d. $25 + 25 + 25 = 75$

1. Solve the multiplicative comparison problem.

The hall monitor counted the number of students arriving to school on Monday morning. Twenty-five students arrived by car. On Tuesday morning she counted three times as many students arriving by car. Find the multiplication equation that represents the math for this problem.

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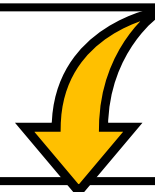
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3 Versions

- Print
- Google Slides
- Webscape™ (Our most popular experience)

Learn more!



	PDF 	Google Slides 	Webscape™ 
Format Type	Printable	Digital	Digital
Device	N/A	Any Device	Any Device
Required Prep	Print & Go	Copy & Share	Zero Prep
Student Answers	Printable Answer Pamphlet	Google Sheets Decoder Tool	Integrated Challenge Hub
Self Correcting	Includes Answer Key	Self Correcting	Self Correcting
Custom Videos	QR Codes	Embedded You Tube	Embedded
Audio Readings	N/A	No Audio Readings	Contains Audio Readings
Navigation	N/A	Student Directed	Automatically Advancing
Extras	Early Finish Challenges	Movable Pieces	Interactive Animation

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Learn more!



Print

- Cut and paste stamps for each challenge
- Easy to follow
- Optimal for group or partner work
- Recording brochure for answers
- Self-checking decoder
- Certificate of completion

Learn more!



Print

- OOPS! Cards for differentiation

Learn more!



The Case of the Missing Valentines

Harper Brown

(name)

has successfully completed the challenges and cracked the case!

Scan the QR code or click [here](#) to view the video.

16/02

(Date)

Ms. Heart's Class



LOVE
XOXO

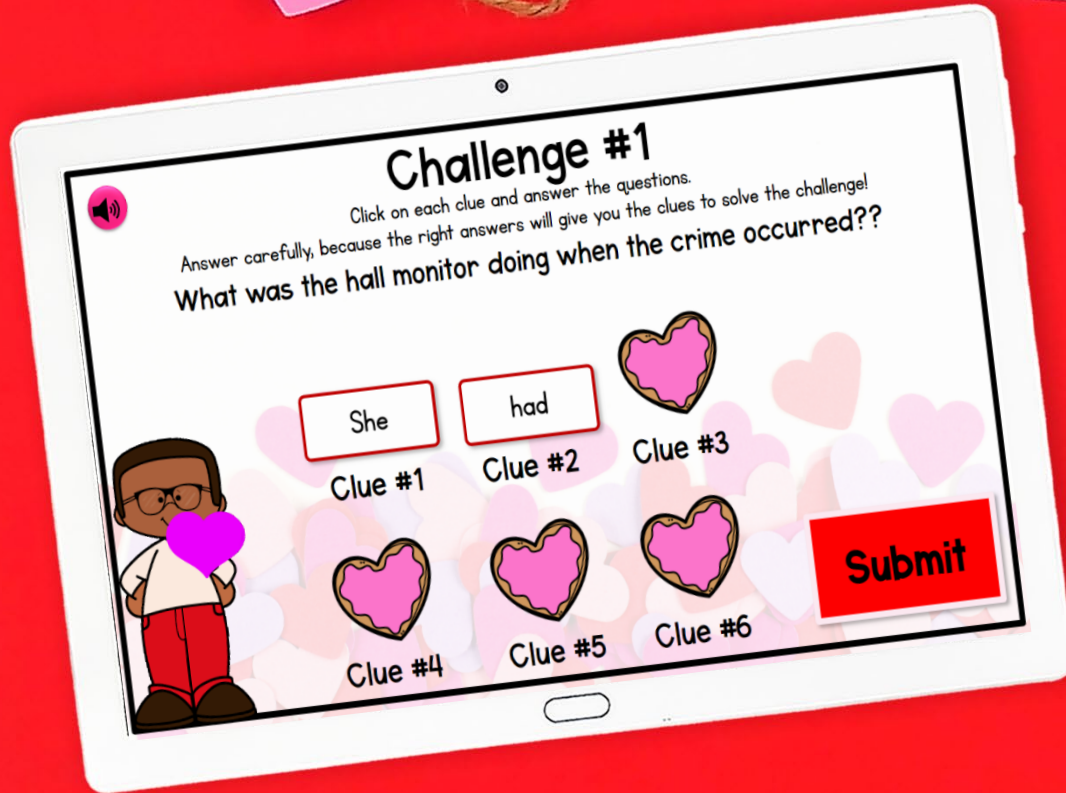
Oops!

Cupid hit you with his arrow!



YOU MUST STAY QUIET FOR 5 MINUTES. NO SPEAKING!

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- Most interactive experience
- Self correcting
- Embedded videos
- Embedded audio
- Animation
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Webscape TM

- No log ins or sign ups
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- Zero prep! Just share the link with your students.

Learn more!



LOVE

XOXO

CLUE #3:

The influencers spent lunch posing for one big collab and the timestamps don't lie. You had to rule them out.

You heard the influencers say they stayed up late last night to do their tricks. This makes them suspects. Click the clue to paste it into your notebook. You will need it later. Then, continue to your next challenge.

Google Slides

1.

Solve the word problem.

The quiet kid brought 8 packages of silver wrapped chocolates and 7 packages of red wrapped chocolates to share at school. Each package had 273 candies in it. First, he multiplied to find the number of each color of wrapped chocolates. Then, he added the two numbers together to find the sum. Find the correct answer.

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LOVE

JOY

- One problem per slide
- Students drag to circle their answers

Learn more!



Google Slides

- Toggle to self-checking decoder
- Decoder will prompt at the end of each challenge whether students are correct or need to check their work.

Learn more!



Looking for More?

