

Dear Parents,

The summer packets for this summer are **Mystery Math Activity Packets**. The kids had a lot of fun doing a couple different ones over the school year. They offer a good review of math concepts. They also help the kids with logical thinking, teach them the process of elimination and are **FUN!**

Please know that if your child struggles with a specific concept, put extra practice into that concept. Mastering their addition, subtraction, multiplication and division facts will help them tremendously once school starts again.

I have also attached a list of fun, picture math books and free websites you can find to enforce math as well.

I have enjoyed this past year so much!!! And I have loved being a part of your child's everyday life and learning!

I hope everyone has a fantastic summer!!!

Ms. Melissa

WEBSITES FOR MATH PICTURE BOOKS

<https://www.livinglifeandlearning.com/math-books-kids-will-love.html>

https://storiesbystorie.com/childrens-books-about-place-value/?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_tribes&utm_content=tribes&utm_term=694282702_27709336_228043

<https://mathgeekmama.com/best-books-teach-to-fractions/>

<https://mathgeekmama.com/teaching-math-with-sir-cumference/>

https://intentionalfamilylife.com/stories-about-math/?utm_medium=social&utm_source=pinterest&utm_campaign=tailwind_tribes&utm_content=tribes&utm_term=1030634270_47783488_30627

<https://mathgeekmama.com/best-books-to-teach-money-math/>

<https://www.weareteachers.com/picture-books-about-math/?epik=dj0yJnU9Q1BwYjhHU09BN1QxNzFPSTU2NjM5anVJdzdRT2hGd3EmcD0wJm49S2xPZTA0YTI2MWZfVGw5QjkyZTB4USZ0PUFBQUFBFR0o1VEZr>

<https://mathgeekmama.com/5-simple-ways-teach-with-math-story-books/>

MATH WEBSITES

<https://www.coolmathgames.com/>

<https://afterschoolhelp.com/>

<https://www.mathplayground.com/>

<https://www.splashlearn.com/math-games>

<https://www.prodigygame.com/main-en/>

<https://www.crazygames.com/t/math>

MATH MYSTERY

CASE OF THE GRADUATION GREMLINS

GRADE

5



Teacher Resource Instructions

PREPARATION

Print and copy pages [4-12](#) (choose between [page 7](#) or [8](#) depending on your measurement unit preference) for your students. You can do either of the following:

- Combine the pages to form a booklet for each student to work on; OR
- Hand out worksheets as you want students to work on them – please note that if you choose this option, students will always need the 'Possible Hideouts' page handy.

IMPORTANT: The clues must be completed in the order I have arranged them in i.e. 1-5!

<PLEASE CLICK HERE to ACCESS the WORKSHEETS DIGITALLY ON GOOGLE SLIDES>

- You will need to make a digital copy for each student
- Your students will need to be in 'edit' mode not 'present' mode to enter answers into the boxes.

HOW TO USE

Read through the article on page 4 'Math Mystery: Case of the Graduation Gremlins' to set up the activity and engage students or watch the [optional video hook](#).

Instruct students that they will need to keep referring back to their [Possible Hideouts list](#) after solving each clue.

Students work through each clue, either guided by the teacher or independently (your choice). After completing a math worksheet, if students completed the questions correctly, a clue will be revealed. For example: '*It is a cold place.*' So, in this example, students then need to go to their possible hideouts list and cross off any places remaining that are not cold.

Once students have correctly completed all of the clues, only one hideout will remain and that place is where the gremlins are hiding with all of the graduation items. On page 11, the teacher ticks off the '*Well done . . .*' box and the student can receive an Award (provided on page 18). If a student gets the wrong place, tick the second box "*Oops! Try again,*" and instruct the student to go over their work to see where they went wrong.

[<View this blog post>](#) for more information about solving math mysteries.

ANSWERS

You will find the answer key on [pages 12-17](#). This includes the elimination process of hideouts post each clue. A color coded guide with comments has been provided to show this.

AWARDS

On [page 20](#) you will find awards that you can print and give to students who solve the case correctly. I suggest making it a rule that students complete all of the questions on each worksheet to be eligible for the award (even if they can guess what the clue is without finishing all of the math questions!).

If you need help, have any questions, or notice an error in my work please email me on JJResourceCreations@gmail.com

MATH MYSTERY:

CASE OF THE GRADUATION GREMLINS

Date: _____



It is almost the end of the school year, but trouble has struck Mathhattan Elementary School! Teachers and students have reported that a gang of gremlins have been vandalizing the school and taking all sorts of important items required for graduation celebrations.

Mrs. Frumpy complained, "They took my awards, certificates, memory books, games, prizes, hats, and even my microphone! How are my students going to graduate now? They are so disappointed with these mischievous gremlins trying to ruin the end of the year for everyone."

Sophia, a student, cried, "We were going to have a graduation party with food and games, but those terrible gremlins just stormed right into the classroom and took them all!"

Another student, named Anthony, put in the following statement, "I saw a group of gremlins sneak into the Principal's office and run out with her books, awards, trophies, and computer! Someone must find where the gremlins are hiding with all of our things so that we can graduate and celebrate the end of the year properly!"

MATH DETECTIVE NEEDED TO SEEK OUT THE GREMLIN GANG HIDEOUT AND RECOVER THE STOLEN GRADUATION ITEMS!!!

The police have made a list of all the possible places the gang of gremlins could be hiding. However, they need a super detective with math skills to help them solve this case.

Let's hope that we can find these gremlins trying to ruin graduation, recover all of the stolen items and put a stop to them, ruining the end of the school year for everyone!



POSSIBLE HIDEOUTS

| Hideout Place | Distance From Mathhattan Elementary School | Size | Temperature of Hideout | Positional Direction | Is it Underground? Yes/NO |
|-------------------------------|--|--------|------------------------|----------------------|---------------------------|
| Algebra Island | Far | Large | Warm | West | No |
| Crystal Cave | Close | Large | Cold | East | No |
| Sewer | Close | Large | Cold | North | Yes |
| Abandoned Theme Park | Far | Large | Warm | South | No |
| Pets Paradise Hotel | Close | Large | Warm | East | No |
| Crimson Chambers | Close | Medium | Cold | South | Yes |
| Chuck's Car Yard | Far | Medium | Warm | West | No |
| Pepe's Pizzeria Store Room | Close | Small | Cold | North | No |
| Behind the Donut Queen's Shop | Far | Small | Warm | South | No |
| The Historical Catacombs | Close | Large | Cold | South | Yes |
| Mrs Frumpy's Basement | Close | Small | Cold | North | Yes |
| The Graveyard | Far | Large | Cold | East | No |
| Mathhattan Subway Station | Close | Medium | Warm | South | Yes |
| The Local IT Company | Close | Medium | Cold | South | No |
| Slimewort's Abandoned Lair | Close | Small | Cold | West | Yes |

**Solve the clues and then cross the hideout place off the list until one remains!
The last place remaining is where the gremlins are hiding with all of the graduation items!**

SQUARE NUMBERS – CLUE 1

Crack the code by completing the square number questions below. Use your answers to match and place the letters in the boxes to reveal the clue. Put the letter in every box that it matches your answer in (there may be more than one!) The first one has been done for you!

| | | | | |
|----|----|-----|---|-----|
| | | | | |
| 49 | 64 | 144 | 9 | 100 |

| | | | | | | |
|----|---|-----|-----|----|---|----|
| | | | | | U | |
| 64 | 9 | 121 | 144 | 36 | 4 | 49 |

| | | | |
|----|---|----|----|
| | U | | |
| 25 | 4 | 81 | 49 |

| | |
|---|-----|
| | |
| 1 | 144 |

| | | | | |
|-----|----|----|----|-----|
| | | | | |
| 400 | 16 | 36 | 81 | 144 |

| | |
|----|----|
| | |
| 49 | 36 |

| | | |
|----|----|-----|
| | | |
| 49 | 64 | 144 |

| | | | | | |
|----|-----|----|----|----|----|
| | | | | | |
| 81 | 400 | 64 | 36 | 36 | 16 |

$$2^2 = \frac{4}{U}$$

$$4^2 = \frac{\quad}{L}$$

$$10^2 = \frac{\quad}{R}$$

$$3^2 = \frac{\quad}{I}$$

$$5^2 = \frac{\quad}{M}$$

$$8^2 = \frac{\quad}{H}$$

$$12^2 = \frac{\quad}{E}$$

$$9^2 = \frac{\quad}{S}$$

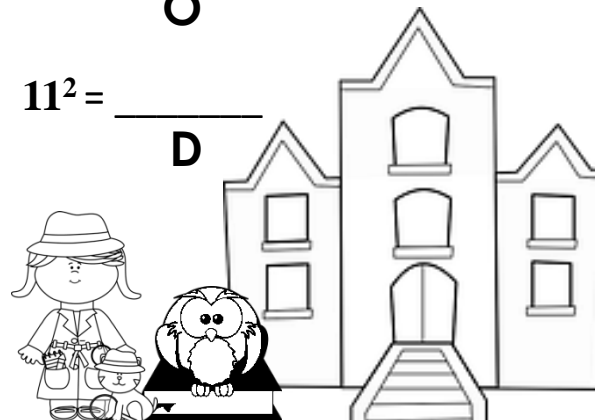
$$6^2 = \frac{\quad}{O}$$

$$1^2 = \frac{\quad}{B}$$

$$7^2 = \frac{\quad}{T}$$

$$11^2 = \frac{\quad}{D}$$

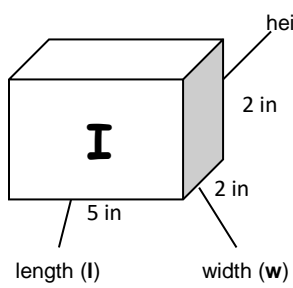
$$20^2 = \frac{\quad}{C}$$



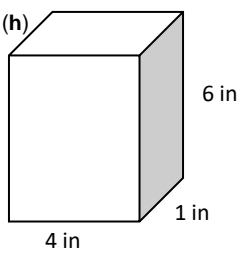
Imperial Units

VOLUME – CLUE 2

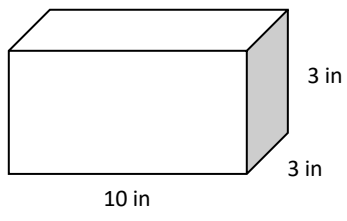
Reveal a clue about the Gremlins hideout place by working out the volume of each rectangular prism below using the volume formula $V = L \times W \times H$. Use your answers to find which letter to place inside each shape. The first one has been done for you!



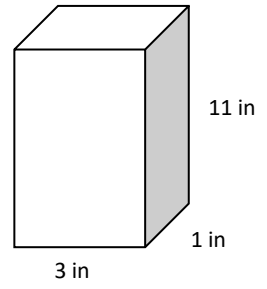
Volume = 20 in³



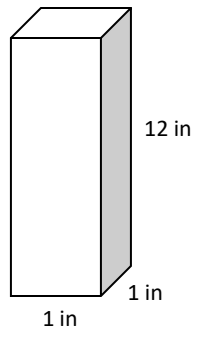
Volume = _____



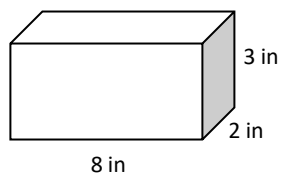
Volume = _____



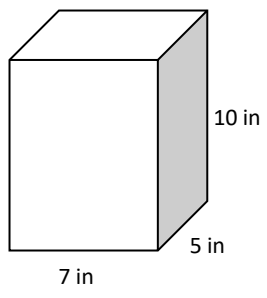
Volume = _____



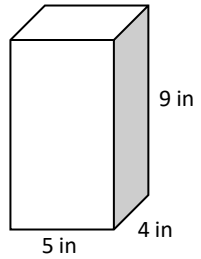
Volume = _____



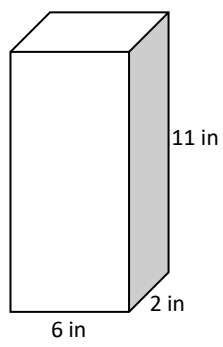
Volume = _____



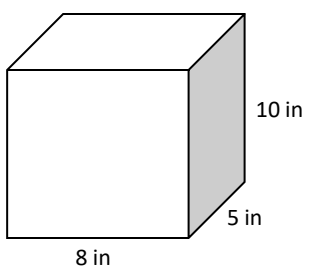
Volume = _____



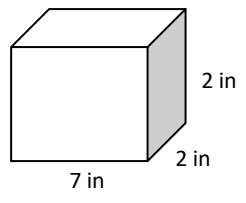
Volume = _____



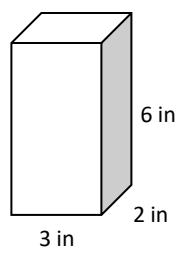
Volume = _____



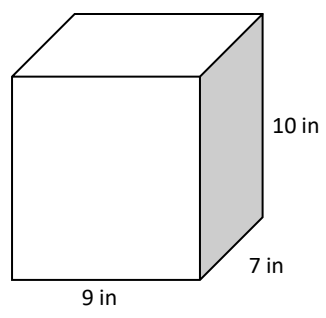
Volume = _____



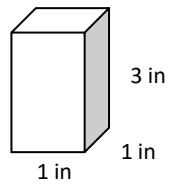
Volume = _____



Volume = _____



Volume = _____



Volume = _____

20 cubic inches = I

28 cubic inches = L

36 cubic inches = A

3 cubic inches = E

33 cubic inches = S

132 cubic inches = D

12 cubic inches = A

180 cubic inches = L

24 cubic inches = T

350 cubic inches = O

90 cubic inches = I

630 cubic inches = C

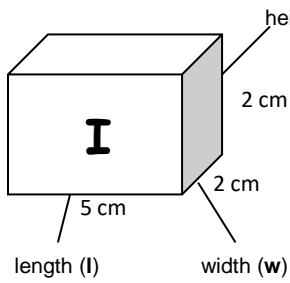
48 cubic inches = C

400 cubic inches = P

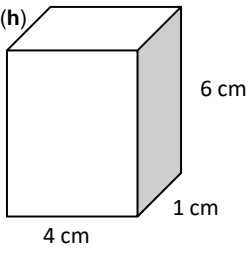
Metric Units

VOLUME – CLUE 2

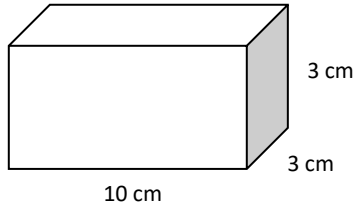
Reveal a clue about the Gremlins hideout place by working out the volume of each rectangular prism below using the volume formula $V = L \times W \times H$. Use your answers to find which letter to place inside each shape. The first one has been done for you!



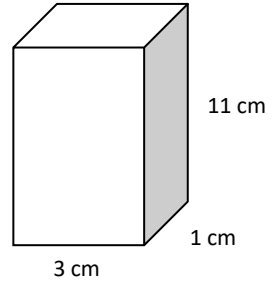
Volume = 20 cm³



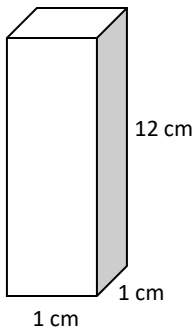
Volume = _____



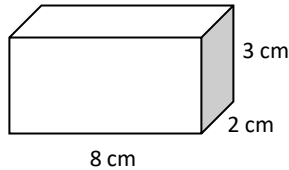
Volume = _____



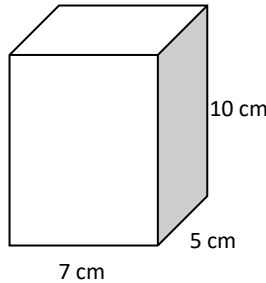
Volume = _____



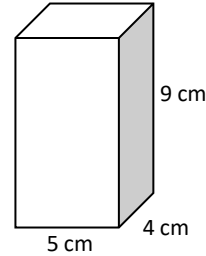
Volume = _____



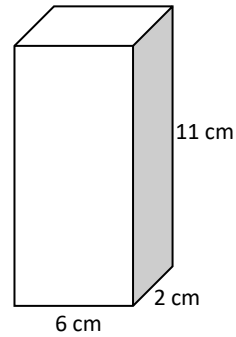
Volume = _____



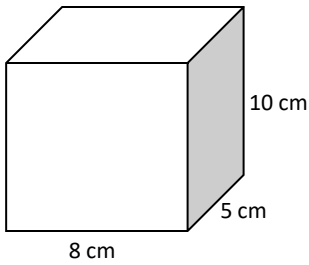
Volume = _____



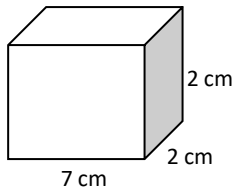
Volume = _____



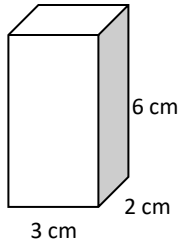
Volume = _____



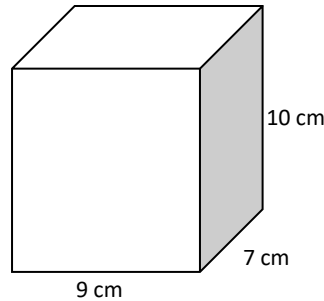
Volume = _____



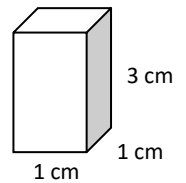
Volume = _____



Volume = _____



Volume = _____



Volume = _____

20 cm³ = I

28 cm³ = L

36 cm³ = A

3 cm³ = E

33 cm³ = S

132 cm³ = D

12 cm³ = A

180 cm³ = L

24 cm³ = T

350 cm³ = O

90 cm³ = I

630 cm³ = C

48 cm³ = C

400 cm³ = P

REDUCING FRACTIONS – CLUE 3

In the grid below you will find a number of public statements that the police collected, however unfortunately only one of them is revealing a correct clue. Reduce the fractions to the lowest form in the list at the bottom of the page, and then look for your answer in the statement boxes and cross out that box (meaning that the statement in that box has been eliminated). The one statement box left standing after completing all of the questions, is the one with the correct clue!

| | | | |
|--|--|--|--|
| Do you think that it is possible that the gremlins are hiding in the school? $\frac{7}{10}$ | My sister said that she saw a gang of gremlins running with all of the graduation items towards Chuck's Car Yard. $\frac{3}{4}$ | There has been some gossip around town that they are hiding in a medium sized place south of Mathhattan Elementary. $\frac{1}{8}$ | I'd say they are probably also who are responsible for our poor Internet connection lately, have you check in with the Local IT Company? $\frac{3}{40}$ |
| I think I saw a couple of gremlins hiding a stash of certificates in a place in the northern direction. $\frac{4}{5}$ | I saw this medium place that would be great for hiding all of the items they took. $\frac{9}{10}$ | They are probably lurking in one of those strange places in the south. $\frac{2}{3}$ | I'm pretty sure the gremlins have been meddling with my computer every night! $\frac{1}{5}$ |
| My guess is that the gremlins are probably hiding in a large place. $\frac{1}{3}$ | I heard that gremlins are scared of the dark, so they wouldn't be hiding underground. $\frac{3}{5}$ | My Aunt said that she spoke to a man who said that he saw a bunch of gremlins running with the graduation items west of Mathhattan. $\frac{1}{4}$ | I wouldn't be surprised if they were colluding with Mrs Frumpy and in fact hiding in her basement! $\frac{9}{20}$ |
| The gremlins must be hiding underground to not be easily noticed or found with all of the items. $\frac{2}{5}$ | The gremlins must be hiding in a small place, because they like confined spaces. $\frac{6}{11}$ | I'm pretty sure I saw a gremlin running into the local IT company. $\frac{1}{2}$ | Rumor has it that the gremlins are probably using Slimewort's abandoned lair. $\frac{1}{6}$ |

$$\frac{10}{30} = \quad \frac{5}{40} = \quad \frac{24}{30} = \quad \frac{25}{50} = \quad \frac{44}{66} =$$

$$\frac{81}{108} = \quad \frac{450}{1000} = \quad \frac{12}{60} = \quad \frac{36}{66} = \quad \frac{49}{70} =$$

$$\frac{40}{160} = \quad \frac{8}{48} = \quad \frac{900}{1000} = \quad \frac{75}{1000} = \quad \frac{36}{60} =$$

COORDINATES- CLUE 4

Locate which letter is at each coordinate listed, and then write that letter in the empty box provided above the coordinate given. Once you have found all of the letters and arranged them into the empty boxes, a clue will be revealed! The first one has been done for you.

| | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|
| 10 | S | A | W | O | D | I | N | S | H | U | V |
| 9 | E | S | D | S | A | C | R | O | S | M | F |
| 8 | P | G | T | W | J | S | F | T | L | R | O |
| 7 | F | Y | I | A | G | M | H | R | I | P | U |
| 6 | Q | T | H | K | O | C | L | A | E | L | F |
| 5 | I | B | O | E | G | I | N | P | L | N | J |
| 4 | L | U | X | F | N | A | T | M | S | R | O |
| 3 | N | E | T | R | U | Z | G | A | I | U | E |
| 2 | G | O | G | A | K | E | M | V | O | J | H |
| 1 | F | I | D | S | E | T | H | Y | P | N | O |
| | A | B | C | D | E | F | G | H | I | J | K |



G [] [] [] [] [] []

(C,2) (H,7) (E,1) (J,9) (A,4) (C,7) (G,5)

[] [] [] [] [] [] [] [] [] []

(K,6) (E,6) (I,2) (G,4) (A,8) (D,3) (F,5) (J,1) (B,6) (H,10)

[] [] [] []

(D,8) (K,3) (G,9) (I,6)

[] [] [] [] []

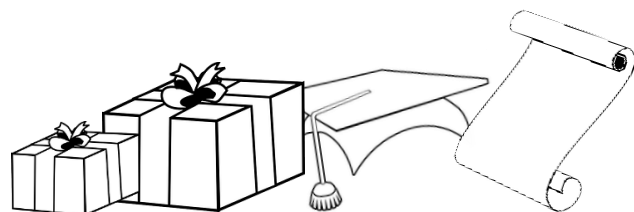
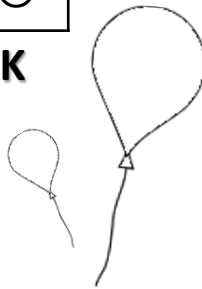
(A,7) (K,1) (B,4) (J,5) (E,10)

[] [] [] [] [] [] []

(I,10) (F,2) (H,3) (C,9) (B,1) (E,4) (A,2)

[] [] [] [] []

(F,8) (D,10) (J,3) (C,8) (G,1)



ADDING DECIMALS - CLUE 5

Discover clue 5 by correctly adding the decimals below. Locate your answer at the bottom and see what letter it matches to write in the box. The first one has been done for you!

$$\begin{array}{r} 23.1 \\ + 22.2 \\ \hline 45.3 \end{array}$$

T

$$\begin{array}{r} 13.04 \\ + 21.02 \\ \hline \end{array}$$

$$\begin{array}{r} 56.3 \\ + 31.4 \\ \hline \end{array}$$

$$\begin{array}{r} 43.2 \\ + 13.6 \\ \hline \end{array}$$

$$\begin{array}{r} 19.8 \\ + 36.1 \\ \hline \end{array}$$

$$\begin{array}{r} 63.94 \\ + 12.51 \\ \hline \end{array}$$

$$\begin{array}{r} 10.3 \\ + 44.93 \\ \hline \end{array}$$

$$\begin{array}{r} 76.39 \\ + 2.55 \\ \hline \end{array}$$

$$\begin{array}{r} 47.75 \\ + 42.68 \\ \hline \end{array}$$

$$\begin{array}{r} 75.6 \\ + 17.8 \\ \hline \end{array}$$

$$\begin{array}{r} 32.64 \\ + 11.89 \\ \hline \end{array}$$

$$\begin{array}{r} 29.75 \\ + 24.99 \\ \hline \end{array}$$

$$\begin{array}{r} 83.79 \\ + 19.21 \\ \hline \end{array}$$

$$\begin{array}{r} 62.22 \\ + 16.56 \\ \hline \end{array}$$

$$\begin{array}{r} 29.9 \\ + 45.8 \\ \hline \end{array}$$

$$\begin{array}{r} 58.3 \\ + 33.8 \\ \hline \end{array}$$

$$\begin{array}{r} 76.84 \\ + 5.91 \\ \hline \end{array}$$

$$\begin{array}{r} 16.78 \\ + 74.8 \\ \hline \end{array}$$

$$\begin{array}{r} 18.26 \\ + 6.55 \\ \hline \end{array}$$

$$\begin{array}{r} 27.96 \\ + 9.45 \\ \hline \end{array}$$

$$\begin{array}{r} 38.4 \\ + 15.3 \\ \hline \end{array}$$

$$\begin{array}{r} 70.01 \\ + 29.57 \\ \hline \end{array}$$

$$\begin{array}{r} 62.68 \\ + 15.94 \\ \hline \end{array}$$

$$\begin{array}{r} 41.9 \\ + 29.6 \\ \hline \end{array}$$

$$\begin{array}{r} 44.5 \\ + 35.5 \\ \hline \end{array}$$

$$\begin{array}{r} 15.99 \\ + 7.95 \\ \hline \end{array}$$

$$\begin{array}{r} 16.3 \\ + 31.6 \\ \hline \end{array}$$

$$\begin{array}{r} 50.14 \\ + 25.87 \\ \hline \end{array}$$

$$\begin{array}{r} 20.95 \\ + 61.30 \\ \hline \end{array}$$

The answers are jumbled up below with a letter to help crack the code!

45.3 = T

76.01 = G

80 = O

82.75 = R

78.62 = S

44.53 = S

78.94 = E

47.9 = A

75.7 = L

91.58 = G

55.9 = L

99.58 = R

56.8 = P

103 = B

37.41 = F

90.43 = M

34.06 = H

87.7 = E

82.25 = E

71.5 = T

24.81 = E

23.94 = R

54.74 = T

55.23 = C

78.78 = E

92.1 = A

76.45 = A

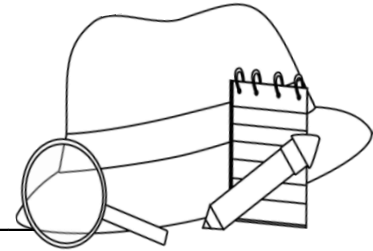
53.7 = O

93.4 = U

SOLVE THE MYSTERY: WHERE ARE THE GRADUATION GREMLINS HIDING?



Detective



(your name)

Has discovered that the Graduation Gremlins' Hideout is:

Clues Checklist:

Clue 1

Clue 2

Clue 3

Clue 4

Clue 5



Teacher to check and tick

Well done you have found where the gremlins are hiding and recovered all of the graduation items!



Oops! No that is not where the gremlins are hiding. Try Again.

ANSWER SHEET – CLUE 1

Crack the code by completing the square number questions below. Use your answers to match and place the letters in the boxes to reveal the clue. Put the letter in every box that it matches your answer in (there may be more than one!) The first one has been done for you!

| | | | | |
|----|----|-----|---|-----|
| T | H | E | I | R |
| 49 | 64 | 144 | 9 | 100 |

Cross off all places that are far from the school.

| | | | | | | |
|----|---|-----|-----|----|---|----|
| H | I | D | E | O | U | T |
| 64 | 9 | 121 | 144 | 36 | 4 | 49 |

| | | | |
|----|---|----|----|
| M | U | S | T |
| 25 | 4 | 81 | 49 |

| | |
|---|-----|
| B | E |
| 1 | 144 |

| | | | | |
|-----|----|----|----|-----|
| C | L | O | S | E |
| 400 | 16 | 36 | 81 | 144 |

| | |
|----|----|
| T | O |
| 49 | 36 |

| | | |
|----|----|-----|
| T | H | E |
| 49 | 64 | 144 |

| | | | | | |
|----|-----|----|----|----|----|
| S | C | H | O | O | L |
| 81 | 400 | 64 | 36 | 36 | 16 |

$$2^2 = \frac{4}{U}$$

$$4^2 = \frac{16}{L}$$

$$10^2 = \frac{100}{R}$$

$$3^2 = \frac{9}{I}$$

$$5^2 = \frac{25}{M}$$

$$8^2 = \frac{64}{H}$$

$$12^2 = \frac{144}{E}$$

$$9^2 = \frac{81}{S}$$

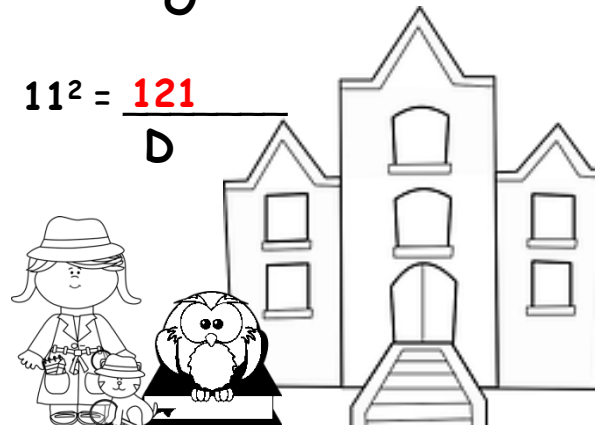
$$6^2 = \frac{36}{O}$$

$$1^2 = \frac{1}{B}$$

$$7^2 = \frac{49}{T}$$

$$11^2 = \frac{121}{D}$$

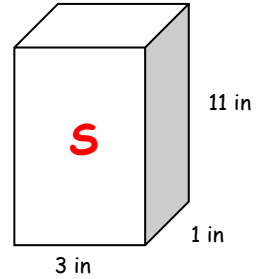
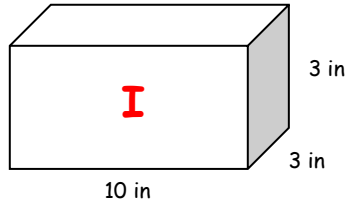
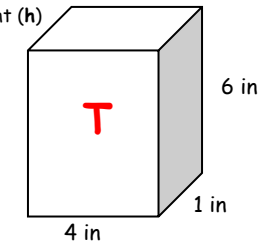
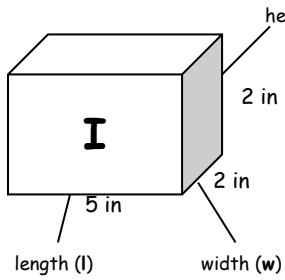
$$20^2 = \frac{400}{C}$$



Imperial Units

ANSWER SHEET - CLUE 2

Reveal a clue about the Gremlins hideout place by working out the volume of each rectangular prism below using the volume formula $V = L \times W \times H$. Use your answers to find which letter to place inside each shape. The first one has been done for you!

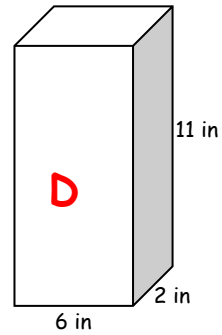
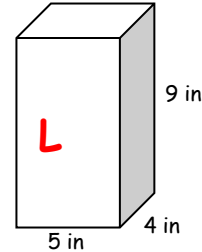
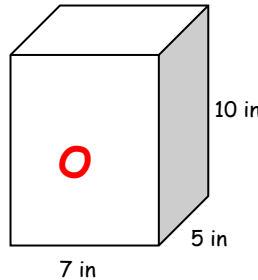
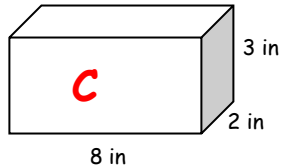
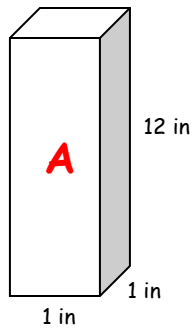


Volume = 20 in³

Volume = 24 in³

Volume = 90 in³

Volume = 33 in³



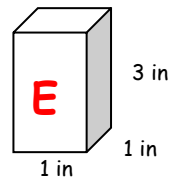
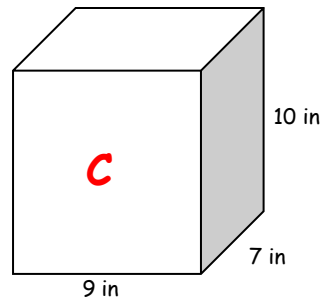
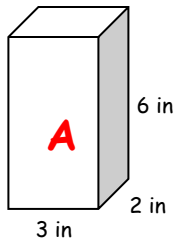
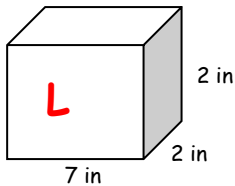
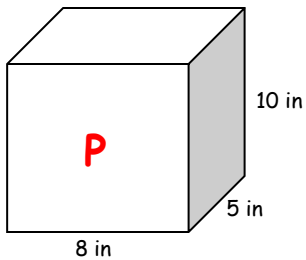
Volume = 12 in³

Volume = 48 in³

Volume = 350 in³

Volume = 180 in³

Volume = 132 in³



Volume = 400 in³

Volume = 28 in³

Volume = 36 in³

Volume = 630 in³

Volume = 3 in³

20 cubic inches = I

28 cubic inches = L

36 cubic inches = A

3 cubic inches = E

33 cubic inches = S

132 cubic inches = D

12 cubic inches = A

180 cubic inches = L

24 cubic inches = T

350 cubic inches = O

90 cubic inches = I

630 cubic inches = C

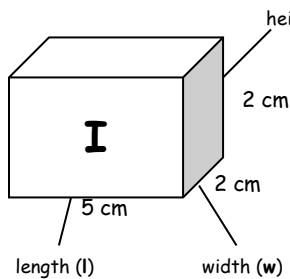
48 cubic inches = C

400 cubic inches = P

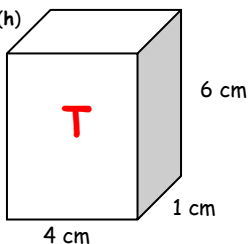
Metric Units

ANSWER SHEET – CLUE 2

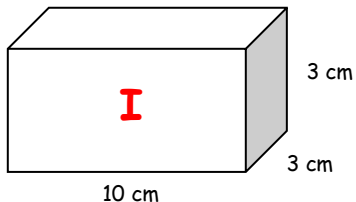
Reveal a clue about the Gremlins hideout place by working out the volume of each rectangular prism below using the volume formula $V = L \times W \times H$. Use your answers to find which letter to place inside each shape. The first one has been done for you!



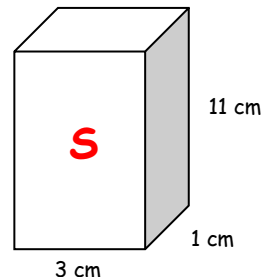
Volume = 20 cm³



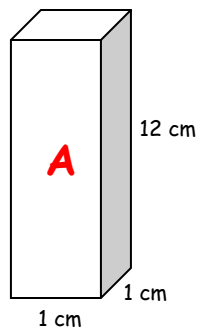
Volume = 24 cm³



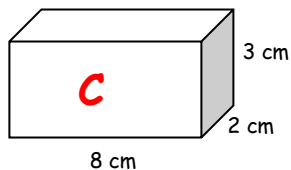
Volume = 90 cm³



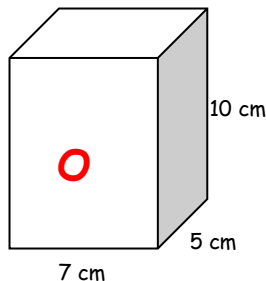
Volume = 33 cm³



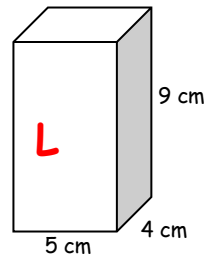
Volume = 12 cm³



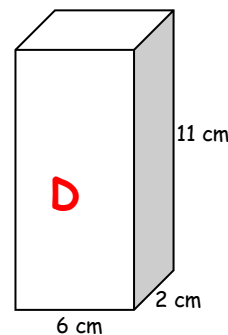
Volume = 48 cm³



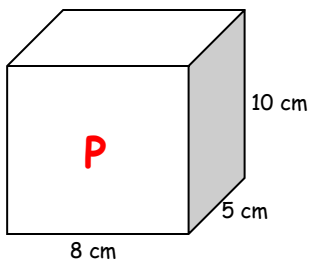
Volume = 350 cm³



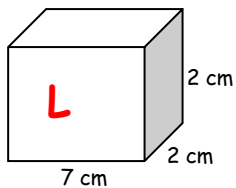
Volume = 180 cm³



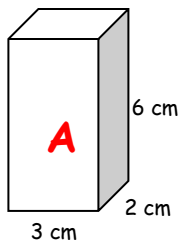
Volume = 132 cm³



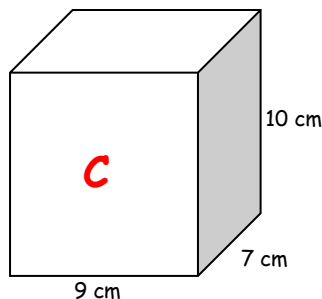
Volume = 400 cm³



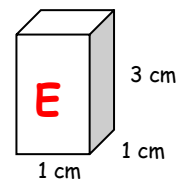
Volume = 28 cm³



Volume = 36 cm³



Volume = 630 cm³



Volume = 3 cm³

20 cm³ = I

28 cm³ = L

36 cm³ = A

3 cm³ = E

33 cm³ = S

132 cm³ = D

12 cm³ = A

180 cm³ = L

24 cm³ = T

350 cm³ = O

90 cm³ = I

630 cm³ = C

48 cm³ = C

400 cm³ = P

ANSWER SHEET- CLUE 3

In the grid below you will find a number of public statements that the police collected, however unfortunately only one of them is revealing a correct clue. Reduce the fractions to the lowest form in the list at the bottom of the page, and then look for your answer in the statement boxes and cross out that box (meaning that the statement in that box has been eliminated). The one statement box left standing after completing all of the questions, is the one with the correct clue!

| | | | |
|--|--|--|--|
| <p>Do you think that it is possible that the gremlins are hiding in the north?</p> <p>X</p> <p>$\frac{7}{10}$</p> | <p>My sister said that she saw a gang of gremlins running with all of the graduation gifts towards the Car Yard.</p> <p>X</p> <p>$\frac{3}{4}$</p> | <p>There has been some gossip around town that they are hiding in a medium sized place south of Mattan Elementary.</p> <p>X</p> <p>$\frac{1}{8}$</p> | <p>I'd say they are probably also who are responsible for our poor Internet connection. They, have you checked with the Local IT Company?</p> <p>X</p> <p>$\frac{3}{40}$</p> |
| <p>I think I saw a couple of gremlins hiding a stash of computers in a place in the northern direction.</p> <p>X</p> <p>$\frac{4}{5}$</p> | <p>I saw this medium place that would be great for hiding all of the items that I took.</p> <p>X</p> <p>$\frac{9}{10}$</p> | <p>They are probably lurking in one of those small places in the south.</p> <p>X</p> <p>$\frac{2}{3}$</p> | <p>I'm pretty sure the gremlins have been meddling with my computer all night!</p> <p>X</p> <p>$\frac{1}{5}$</p> |
| <p>My guess is that the gremlins are probably hiding in a large place.</p> <p>X</p> <p>$\frac{1}{3}$</p> | <p>I heard that gremlins are scared of the dark, so they wouldn't be hiding underground.</p> <p>X</p> <p>$\frac{3}{5}$</p> | <p>My Aunt said that she spoke to a man who said that he had seen a bunch of gremlins running through the streets.</p> <p>X</p> <p>$\frac{1}{4}$</p> | <p>They are probably hiding in the basement!</p> <p>X</p> <p>$\frac{9}{20}$</p> |
| <p>The gremlins must be hiding underground to not be easily noticed or found with all of the items.</p> <p>(Correct Clue)</p> <p>$\frac{2}{5}$</p> | <p>The gremlins must be hiding in a small place, because they like confined spaces.</p> <p>X</p> <p>$\frac{6}{11}$</p> | <p>I'm pretty sure I saw a gremlin running into the local IT company.</p> <p>X</p> <p>$\frac{1}{2}$</p> | <p>Rumor has it that the gremlins are probably using the local IT's abandoned server.</p> <p>X</p> <p>$\frac{1}{6}$</p> |

Cross off any places that are not underground.

- $\frac{10}{30} = \frac{1}{3}$
- $\frac{5}{40} = \frac{1}{8}$
- $\frac{24}{30} = \frac{4}{5}$
- $\frac{25}{50} = \frac{1}{2}$
- $\frac{44}{66} = \frac{2}{3}$

- $\frac{81}{108} = \frac{3}{4}$
- $\frac{450}{1000} = \frac{9}{20}$
- $\frac{12}{60} = \frac{1}{5}$
- $\frac{36}{66} = \frac{6}{11}$
- $\frac{49}{70} = \frac{7}{10}$

- $\frac{40}{160} = \frac{1}{4}$
- $\frac{8}{48} = \frac{1}{6}$
- $\frac{900}{1000} = \frac{9}{10}$
- $\frac{75}{1000} = \frac{3}{40}$
- $\frac{36}{60} = \frac{3}{5}$

ANSWER SHEET- CLUE 4

Locate which letter is at each coordinate listed, and then write that letter in the empty box provided above the coordinate given. Once you have found all of the letters and arranged them into the empty boxes, a clue will be revealed! The first one has been done for you.

| | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|
| 10 | S | A | W | O | D | I | N | S | H | U | V |
| 9 | E | S | D | S | A | C | R | O | S | M | F |
| 8 | P | G | T | W | J | S | F | T | L | R | O |
| 7 | F | Y | I | A | G | M | H | R | I | P | U |
| 6 | Q | T | H | K | O | C | L | A | E | L | F |
| 5 | I | B | O | E | G | I | N | P | L | N | J |
| 4 | L | U | X | F | N | A | T | M | S | R | O |
| 3 | N | E | T | R | U | Z | G | A | I | U | E |
| 2 | G | O | G | A | K | E | M | V | O | J | H |
| 1 | F | I | D | S | E | T | H | Y | P | N | O |
| | A | B | C | D | E | F | G | H | I | J | K |

G R E M L I N

(C,2) (H,7) (E,1) (J,9) (A,4) (C,7) (G,5)

F O O T P R I N T S

(K,6) (E,6) (I,2) (G,4) (A,8) (D,3) (F,5) (J,1) (B,6) (H,10)

W E R E

(D,8) (K,3) (G,9) (I,6)

F O U N D

(A,7) (K,1) (B,4) (J,5) (E,10)

H E A D I N G

(I,10) (F,2) (H,3) (C,9) (B,1) (E,4) (A,2)

S O U T H

(F,8) (D,10) (J,3) (C,8) (G,1)

Keep any remaining places
positioned in the south.

ANSWER SHEET- CLUE 5

Discover clue 5 by correctly adding the decimals below. Locate your answer at the bottom and see what letter it matches to write in the box. The first one has been done for you!

$$\begin{array}{r} 23.1 \\ + 22.2 \\ \hline 45.3 \end{array}$$

T

$$\begin{array}{r} 13.04 \\ + 21.02 \\ \hline 34.06 \end{array}$$

H

$$\begin{array}{r} 56.3 \\ + 31.4 \\ \hline 87.7 \end{array}$$

E

$$\begin{array}{r} 43.2 \\ + 13.6 \\ \hline 56.8 \end{array}$$

P

$$\begin{array}{r} 19.8 \\ + 36.1 \\ \hline 55.9 \end{array}$$

L

$$\begin{array}{r} 63.94 \\ + 12.51 \\ \hline 76.45 \end{array}$$

A

$$\begin{array}{r} 10.3 \\ + 44.93 \\ \hline 55.23 \end{array}$$

C

$$\begin{array}{r} 76.39 \\ + 2.55 \\ \hline 78.94 \end{array}$$

E

$$\begin{array}{r} 47.75 \\ + 42.68 \\ \hline 90.43 \end{array}$$

M

$$\begin{array}{r} 75.6 \\ + 17.8 \\ \hline 93.4 \end{array}$$

U

$$\begin{array}{r} 32.64 \\ + 11.89 \\ \hline 44.53 \end{array}$$

S

$$\begin{array}{r} 29.75 \\ + 24.99 \\ \hline 54.74 \end{array}$$

T

$$\begin{array}{r} 83.79 \\ + 19.21 \\ \hline 103.00 \end{array}$$

B

$$\begin{array}{r} 62.22 \\ + 16.56 \\ \hline 78.78 \end{array}$$

E

$$\begin{array}{r} 29.9 \\ + 45.8 \\ \hline 75.7 \end{array}$$

L

$$\begin{array}{r} 58.3 \\ + 33.8 \\ \hline 92.1 \end{array}$$

A

$$\begin{array}{r} 76.84 \\ + 5.91 \\ \hline 82.75 \end{array}$$

R

$$\begin{array}{r} 16.78 \\ + 74.8 \\ \hline 91.58 \end{array}$$

G

$$\begin{array}{r} 18.26 \\ + 6.55 \\ \hline 24.81 \end{array}$$

E

$$\begin{array}{r} 27.96 \\ + 9.45 \\ \hline 37.41 \end{array}$$

F

$$\begin{array}{r} 38.4 \\ + 15.3 \\ \hline 53.7 \end{array}$$

O

$$\begin{array}{r} 70.01 \\ + 29.57 \\ \hline 99.58 \end{array}$$

R

$$\begin{array}{r} 62.68 \\ + 15.94 \\ \hline 78.62 \end{array}$$

S

$$\begin{array}{r} 41.9 \\ + 29.6 \\ \hline 71.5 \end{array}$$

T

$$\begin{array}{r} 44.5 \\ + 35.5 \\ \hline 80.00 \end{array}$$

O

$$\begin{array}{r} 15.99 \\ + 7.95 \\ \hline 23.94 \end{array}$$

R

$$\begin{array}{r} 16.3 \\ + 31.6 \\ \hline 47.9 \end{array}$$

A

$$\begin{array}{r} 50.14 \\ + 25.87 \\ \hline 76.01 \end{array}$$

G

$$\begin{array}{r} 20.95 \\ + 61.30 \\ \hline 82.25 \end{array}$$

E

The answers are jumbled up below with a letter to help crack the code!

45.3 = T

76.01 = G

80 = O

82.75 = E

44.53 = S

78.94 = E

47.9 = E

91.58 = G

55.9 = L

99.58 = R

56.8 = E

103 = B

37.41 = F

90.43 = M

34.06 = E

87.7 = E

82.25 = E

71.5 = T

24.81 = E

23.94 = R

54.74 = T

55.23 = C

78.78 = E

92.1 = A

76.45 = A

53.7 = O

93.4 = U

Cross off any remaining places not large. This should now leave the hideout only remaining.

HIDEOUT ELIMINATION

| Hideout Place | Distance From Mathhattan Elementary School | Size | Temperature of Hideout | Positional Direction from the school | Underground Yes/NO |
|---------------------------------|--|--------------|------------------------|--------------------------------------|--------------------|
| Algebra Island | Far | Large | Warm | West | No |
| Crystal Cave | Close | Large | Cold | East | No |
| Sewer | Close | Large | Cold | North | Yes |
| Abandoned Theme Park | Far | Large | Warm | South | No |
| Pets Paradise Hotel | Close | Large | Warm | East | No |
| Crimson Chambers | Close | Medium | Cold | South | Yes |
| Chuck's Car Yard | Far | Medium | Warm | West | No |
| Pepe's Pizzeria Store Room | Close | Small | Cold | North | No |
| Behind the Donut Queen's Shop | Far | Small | Warm | South | No |
| The Historical Catacombs | Close | Large | Cold | South | Yes |
| Mrs Frumpy's Basement | Close | Small | Cold | North | Yes |
| The Graveyard | Far | Large | Cold | East | No |
| Mathhattan Subway Station | Close | Medium | Warm | South | Yes |
| The Local IT Company | Close | Medium | Cold | South | No |
| Slimewort's Abandoned Lair | Close | Small | Cold | West | Yes |

On the answer sheets you will find a comment about which places need to be crossed off. Please refer to the color of the font and the color of the shaded places to show where has been crossed off from that clue.

HIDEOUT ANSWER: THE HISTORICAL CATACOMBS

MATH MYSTERY



CASE OF THE MISSING CAMPERS

GRADE 5

Teacher Resource Instructions

PREPARATION

Print and copy pages 4-11 for your students. You can do either of the following:

- Combine the pages to form a booklet for each student to work on; OR
- Hand out worksheets as you want students to work on them – please note that if you choose this option, students will always need the 'Possible Places' page handy.
- I recommend carrying out a demonstration and a lesson on the math skill before completing a clue if it is a concept not yet done or is something that your students are struggling with.
- You could get students to work independently or in pairs/groups. This also works well for sub tubs, early finisher tasks, math centers, and enrichment groups.

**IMPORTANT: The clues must be completed in the order I have arranged them in:1-5!
If you prefer not to complete them in the same order, then please
Carry out the elimination process after all five clues are unlocked.**

<PLEASE CLICK HERE to ACCESS the WORKSHEETS DIGITALLY ON GOOGLE SLIDES>

- You will need to make a digital copy for each student
- Your students will need to be in 'edit' mode not 'present' mode to enter answers into the boxes.

HOW TO USE

Read through the article on page 4 'Math Mystery: The Case of the Missing Campers' or view the [optional video hook](#) to set up the activity and engage students.

Instruct students that they will need to keep referring back to their Possible Places list after solving each clue. They must read the clues carefully to decide what it means to cross off the list.

Students work through each clue, either guided by the teacher or independently (your choice). After correctly completing a math worksheet, a clue will be revealed. For example: 'They are not close to the cabins.' So, in this example, students must cross off all rows with locations marked as close to the cabins.

After completing all of the clues, if done correctly, only one location row will remain on the list, and that where they will find the missing campers! On page 11, the teacher ticks off the 'Well done . . . ' box and the student can receive an Award (provided on page 18) if they solve it correctly. If a student gets the wrong answer, tick the second box "Oops! Try again," and instruct the student to go over their work to see where they went wrong.

ANSWERS

You will find the answer key from [page 12](#) - 17

AWARDS

On [page 18](#) you will find awards that you can print and give to students who solve the case correctly. I suggest making it a rule that students complete all of the questions on each worksheet to be eligible for the award (even if they can guess what the clue is without finishing all of the math questions!).

There is an optional ENDING VIDEO provided inside your folder (it is an MP4 file). Use this to wrap up the mystery activity.

If you need help, have any questions, or notice an error in my work please email me on

JJResourceCreations@gmail.com

Thanks! 😊

MATH MYSTERY:

THE CASE OF THE MISSING CAMPERS

Date: _____

Mathhattan's Summer Camp had only just begun, when something strange began to happen. During the night, while the campers were sleeping, scary sounds could be heard echoing through the Whispering Woods.

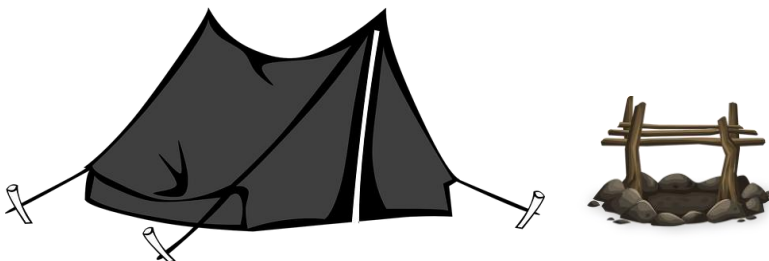
One night, Sandy, Adam, Tom, Alice, Eva, and Ryder decided to investigate the strange noises. They snuck out of their cabin, took two torches, and a bag of supplies. That was the last everyone at the camp had seen them. Their beds were found empty in the morning. They never returned.

Mrs. Appleby cried, "We urgently need a detective to find out what has happened and hopefully rescue our camp friends. Please hurry! We are all so very worried about them."

Gretel cried, "If it helps, my cousin, Tom, usually leaves a trail of candy when he goes out exploring. Detective, if you see any candy, that's a clue as to where they went walking."

MATH DETECTIVE URGENTLY NEEDED TO FIND AND RESCUE THE MISSING CAMPERS!

Hurry, you must rescue the missing campers as fast as possible!



Name: _____

POSSIBLE PLACES

| Location of the Missing Campers | Lost or Kidnapped? | WHOWHAT Caused their disappearance? | Close or Far from the Cabins? | Positional Direction |
|---------------------------------|--------------------|-------------------------------------|-------------------------------|----------------------|
| Big Foot's Den | Kidnapped | A monster | Far | North |
| Monster's Chamber | Kidnapped | A monster | Far | West |
| The Enchanted Pond | Lost | Scared by a swarm of bugs | Close | East |
| The Wishing Tree | Lost | Trapped | Close | South |
| The Druid's Temple | Kidnapped | Trapped | Far | West |
| The Fairy Huts | Kidnapped | Trapped | Close | East |
| Momo's Lair | Kidnapped | A monster | Far | North |
| The Hermit's Hideaway | Lost | Trapped | Far | North |
| The Pine Mirage | Kidnapped | A monster | Close | South |
| Echoes Lake | Lost | Scared by a swarm of bugs | Close | East |
| The Hush-Hush Mushroom | Lost | Made ill from toxic plants | Far | North |
| The Restricted Log Cabins | Lost | Trapped | Close | West |
| The Vanishing Shrub | Lost | Made ill from toxic plants | Close | South |
| The Whispering Lake | Kidnapped | A monster | Far | South |
| The Wizard's Waterfall | Lost | Scared by a swarm of bugs | Far | North |
| The Emerald Everglade | Lost | Made ill from toxic plants | Far | West |
| The Lying Labyrinth | Lost | Trapped | Close | East |
| The Witch Bird's Tricking Tree | Kidnapped | A dangerous animal | Far | West |
| The Grumpy Gnomes' Village | Kidnapped | Trapped | Far | North |
| Riddle Cottage | Lost | Made ill from toxic plants | Far | South |
| The Wolf's Cave | Kidnapped | A dangerous animal | Far | West |

Solve the clues and then cross the locations off the list until only one place remains! The last location remaining is where you will find and rescue the missing campers.

Whole rows must be eliminated at a time.



DIVISION – CLUE 1

Discover the first clue by completing the division questions. Use your answers to match and place the letters in the boxes to reveal the clue. Put the letter in every box that it matches your answer in (there may be more than one!)

The first one is already done for you.

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

74 56 147 96

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52 87 147

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| | | |
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291 41 74

| | |
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| | |
|--|--|

52 74

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
|--|--|--|--|--|--|

147 211 56 41 147 15

| | | | |
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| | | | |
|--|--|--|--|

31 52 65 147

| | | |
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| | | |
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74 56 147

| | | | | | |
|---|--|--|--|--|--|
| F | | | | | |
|---|--|--|--|--|--|

191 52 64 87 96

| | | | |
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56 325 74 15

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41 87

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|--|--|--|
| | | |
|--|--|--|

74 56 147

| | | | | |
|--|--|--|--|--|
| | | | | |
|--|--|--|--|--|

67 87 325 64 67

| |
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|--|

15

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
|--|--|--|--|--|--|

74 147 83 66 31 147

955 ÷ 5 = 191

F



462 ÷ 7 = _____

P

448 ÷ 8 = _____

H

249 ÷ 3 = _____

M

348 ÷ 4 = _____

R

1,266 ÷ 6 = _____

C

2,925 ÷ 9 = _____

U

1,029 ÷ 7 = _____

E

615 ÷ 15 = _____

O

888 ÷ 12 = _____

T

572 ÷ 11 = _____

A

1,824 ÷ 19 = _____

Y

1,600 ÷ 25 = _____

I

1,054 ÷ 34 = _____

L

873 ÷ 3 = _____

N

570 ÷ 38 = _____

S

4,095 ÷ 63 = _____

K

3,283 ÷ 49 = _____

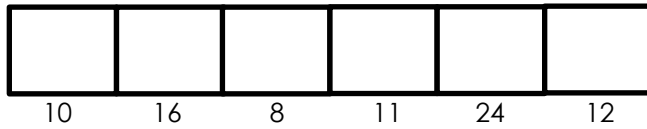
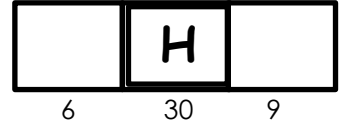
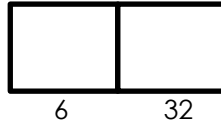
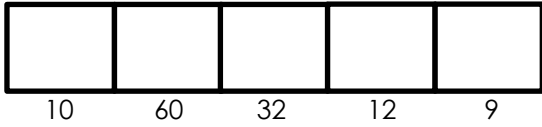
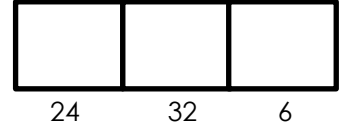
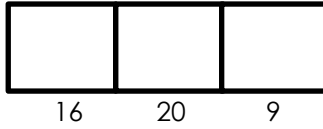
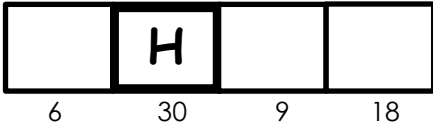
D



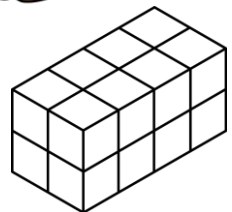
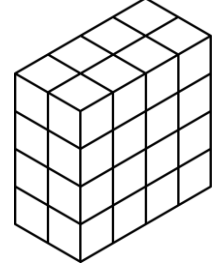
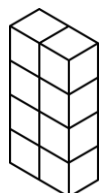
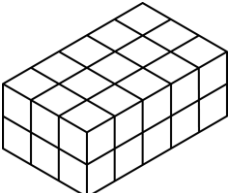
VOLUME – CLUE 2

Discover the next clue by finding the volume in cubic units. Use your answers to match and place the letters in the boxes to reveal the clue. Put the letter in every box that it matches your answer in (there may be more than one!)

The first one is already done for you.



Find the volume in cubic units.



30 cubic units

_____ cubic units

_____ cubic units

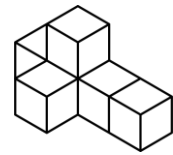
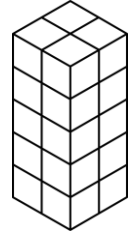
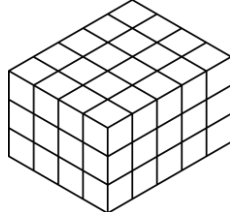
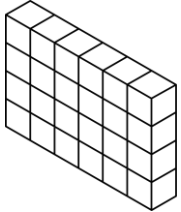
_____ cubic units

H

B

O

A



_____ cubic units

_____ cubic units

_____ cubic units

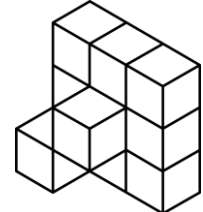
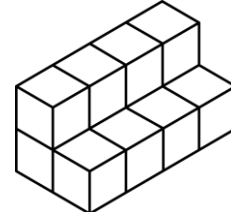
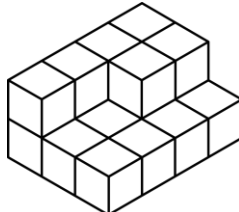
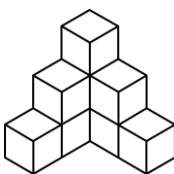
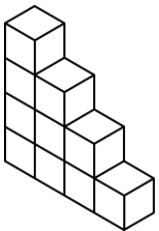
_____ cubic units

N

L

R

T



_____ CU

_____ CU

_____ CU

_____ CU

_____ CU

C

E

Y

S

I



MULTIPLYING FRACTIONS – CLUE 3

Discover the next clue by multiplying the fractions below. Use your reduced (simplified) answers to match and place the letters in the boxes to reveal the clue. Put the letter in every box that it matches your answer in (there may be more than one!)

| | | | |
|----------------|-----------------|----------------|----------------|
| | | | |
| $\frac{9}{50}$ | $\frac{25}{72}$ | $\frac{1}{25}$ | $\frac{1}{70}$ |

| | | |
|----------------|-----------------|----------------|
| | | |
| $\frac{1}{45}$ | $\frac{1}{100}$ | $\frac{1}{70}$ |

| | | |
|----------------|---------------|----------------|
| | | |
| $\frac{9}{44}$ | $\frac{1}{3}$ | $\frac{9}{50}$ |

| | | | | | |
|----------------|-----------------|----------------|----------------|----------------|----------------|
| | | | | | |
| $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{24}$ | $\frac{1}{70}$ | $\frac{5}{12}$ | $\frac{3}{44}$ |

| | |
|----------------|----------------|
| | |
| $\frac{7}{50}$ | $\frac{1}{32}$ |

| |
|-----------------|
| |
| $\frac{1}{100}$ |

| | | | | | | |
|----------------|---------------|----------------|----------------|----------------|----------------|-----------------|
| | | | | | | |
| $\frac{7}{36}$ | $\frac{1}{3}$ | $\frac{9}{44}$ | $\frac{1}{70}$ | $\frac{9}{50}$ | $\frac{5}{12}$ | $\frac{1}{144}$ |



Multiply the fractions below. Reduce (simplify) your answers to the lowest terms possible.

$$\frac{1}{4} \times \frac{1}{6} = \frac{\quad}{\quad}$$

U

$$\frac{1}{10} \times \frac{1}{7} = \frac{\quad}{\quad}$$

S

$$\frac{1}{8} \times \frac{1}{4} = \frac{\quad}{\quad}$$

Y

$$\frac{1}{5} \times \frac{1}{9} = \frac{\quad}{\quad}$$

W

$$\frac{5}{6} \times \frac{5}{12} = \frac{\quad}{\quad}$$

H

$$\frac{1}{2} \times \frac{1}{5} = \frac{\quad}{\quad}$$

C

$$\frac{1}{10} \times \frac{1}{10} = \frac{\quad}{\quad}$$

A

$$\frac{1}{2} \times \frac{5}{6} = \frac{\quad}{\quad}$$

E

$$\frac{1}{12} \times \frac{1}{12} = \frac{\quad}{\quad}$$

R

$$\frac{9}{11} \times \frac{1}{4} = \frac{\quad}{\quad}$$

N

$$\frac{1}{4} \times \frac{3}{11} = \frac{\quad}{\quad}$$

D

$$\frac{2}{5} \times \frac{1}{10} = \frac{\quad}{\quad}$$

I

$$\frac{4}{6} \times \frac{3}{6} = \frac{\quad}{\quad}$$

O

$$\frac{7}{10} \times \frac{1}{5} = \frac{\quad}{\quad}$$

B

$$\frac{3}{5} \times \frac{3}{10} = \frac{\quad}{\quad}$$

T

$$\frac{7}{12} \times \frac{2}{6} = \frac{\quad}{\quad}$$

M



GCF and LCM – CLUE 4

Discover the next clue by finding the **Greatest Common Factor** or the **Lowest Common Multiple** of each set of numbers below. Use your answers to match and place the letters in the boxes to reveal the clue. Put the letter in every box that it matches your answer in (there may be more than one!)

| | | |
|----|----|---|
| | | |
| 12 | 20 | 4 |

| | | | |
|---|---|----|----|
| | | | |
| 3 | 7 | 63 | 11 |

| |
|---|
| |
| 6 |

| | | | | |
|----|---|---|---|---|
| | | | | |
| 24 | 8 | 6 | 7 | 9 |

| | |
|----|---|
| | |
| 20 | 3 |

| | | |
|----|----|---|
| | | |
| 24 | 20 | 5 |

| |
|----|
| |
| 84 |

| | | | | |
|----|---|----|----|----|
| | | | | |
| 90 | 6 | 63 | 11 | 12 |

| | | | | | | |
|----|-----|---|----|---|----|----|
| | | | | | | |
| 10 | 153 | 6 | 11 | 7 | 63 | 99 |

| | | | | |
|----|----|---|----|----|
| | | | | |
| 63 | 20 | 8 | 24 | 10 |



Find the **Greatest Common Factor** of each number set below:

$16 \text{ and } 40 = \underline{\hspace{2cm}}$

| |
|---|
| R |
|---|

$21 \text{ and } 15 = \underline{\hspace{2cm}}$

| |
|---|
| F |
|---|

$35 \text{ and } 28 = \underline{\hspace{2cm}}$

| |
|---|
| I |
|---|

$11 \text{ and } 22 = \underline{\hspace{2cm}}$

| |
|---|
| D |
|---|

$45 \text{ and } 25 = \underline{\hspace{2cm}}$

| |
|---|
| M |
|---|

$45 \text{ and } 36 = \underline{\hspace{2cm}}$

| |
|---|
| L |
|---|

$12, 20 \text{ and } 44 = \underline{\hspace{2cm}}$

| |
|---|
| U |
|---|

$20, 50 \text{ and } 80 = \underline{\hspace{2cm}}$

| |
|---|
| H |
|---|

$12, 18 \text{ and } 24 = \underline{\hspace{2cm}}$

| |
|---|
| A |
|---|

Find the **Least Common Multiple** of each number set below:

$3 \text{ and } 4 = \underline{\hspace{2cm}}$

| |
|---|
| Y |
|---|

$6 \text{ and } 24 = \underline{\hspace{2cm}}$

| |
|---|
| T |
|---|

$9 \text{ and } 11 = \underline{\hspace{2cm}}$

| |
|---|
| G |
|---|

$9 \text{ and } 21 = \underline{\hspace{2cm}}$

| |
|---|
| N |
|---|

$9 \text{ and } 30 = \underline{\hspace{2cm}}$

| |
|---|
| C |
|---|

$5 \text{ and } 4 = \underline{\hspace{2cm}}$

| |
|---|
| O |
|---|

$21 \text{ and } 4 = \underline{\hspace{2cm}}$

| |
|---|
| S |
|---|

$17 \text{ and } 9 = \underline{\hspace{2cm}}$

| |
|---|
| E |
|---|





COORDINATES – CLUE 5

Locate which letter is at each coordinate listed, and then write that letter in the empty box provided above the coordinate given. Once you have found all of the letters and arranged them into the empty boxes, a clue will be revealed! The first one has been done for you.

| | | | | | | | | | | | |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 10 | B | T | E | M | O | P | C | W | N | Q | L |
| 9 | O | R | Y | A | V | C | D | H | G | Y | E |
| 8 | E | O | C | H | S | X | N | J | D | W | U |
| 7 | I | P | M | D | T | S | A | F | M | C | N |
| 6 | Z | P | Y | I | W | Q | G | J | R | U | A |
| 5 | O | H | T | J | I | E | K | B | X | P | S |
| 4 | H | W | T | Y | K | L | E | A | N | G | P |
| 3 | L | F | D | M | R | A | B | E | T | U | L |
| 2 | Q | R | O | P | H | M | N | S | R | S | O |
| 1 | P | H | E | I | W | T | B | I | C | A | V |
| | A | B | C | D | E | F | G | H | I | J | K |

| | | |
|----------|--|--|
| T | | |
|----------|--|--|

(C,5) (H,9) (C,1)

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

(I, 7) (A,7) (J,2) (E, 8) (H,1) (K,7) (I, 9)

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
|--|--|--|--|--|--|--|

(G, 10) (K,6) (D,3) (F,10) (H,3) (I,2) (F,7)

| | | | |
|--|--|--|--|
| | | | |
|--|--|--|--|

(E,1) (G,4) (B,9) (F,5)

| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|
| | | | | | | | | |
|--|--|--|--|--|--|--|--|--|

(G,5) (D,6) (C,3) (I,4) (D,9) (D,2) (F,10) (A,8) (D,7)



SOLVE THE MYSTERY: CASE OF THE MISSING CAMPERS



Detective

_____ *(your name)*



Has discovered that the Missing Campers are at:



Teacher to check and tick

Clues Checklist:

Clue 1

Clue 2

Clue 3

Clue 4

Clue 5



Well done! You correctly solved where the missing campers are located at! Thanks to your hard work, you were able to quickly find and rescue them from being in any more danger. The campers are super thankful for your help.



Oops! No, that is not where the missing campers can be found. Check your work and try again!



ANSWER KEY – CLUE 1

Elimination Note: Cross off Echoes Lake, The Fairy Huts, and The Druid's Temple.

T H E Y
74 56 147 96

A R E
52 87 147

N O T
291 41 74

A T
52 74

E C H O E S
147 211 56 41 147 15

L A K E
31 52 65 147

T H E
74 56 147

F A I R Y
191 52 64 87 96

H U T S
56 325 74 15

O R
41 87

T H E
74 56 147

D R U I D S
67 87 325 64 67 15

T E M P L E
74 147 83 66 31 147

$955 \div 5 = 191$
F



$462 \div 7 = 66$
P

$448 \div 8 = 56$
H

$249 \div 3 = 83$
M

$348 \div 4 = 87$
R

$1,266 \div 6 = 211$
C

$2,925 \div 9 = 325$
U

$1,029 \div 7 = 147$
E

$615 \div 15 = 41$
O

$888 \div 12 = 74$
T

$572 \div 11 = 52$
A

$1,824 \div 19 = 96$
Y

$1,600 \div 25 = 64$
I

$1,054 \div 34 = 31$
L

$873 \div 3 = 291$
N

$570 \div 38 = 15$
S

$4,095 \div 63 = 65$
K

$3,283 \div 49 = 67$
D



ANSWER KEY – CLUE 2

Elimination Note: Cross off all locations that are close to the cabins.

T H E Y
6 30 9 18

A R E
16 20 9

N O T
24 32 6

C L O S E
10 60 32 12 9

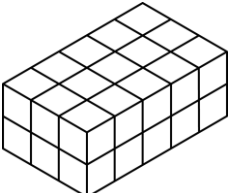
T O
6 32

T H E
6 30 9

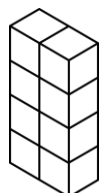
C A B I N S
10 16 8 11 24 12



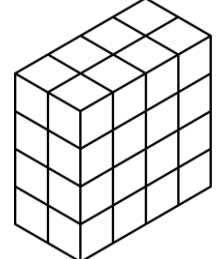
Find the volume in cubic units.



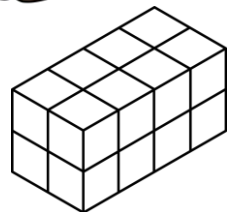
30 cubic units



8 cubic units



32 cubic units



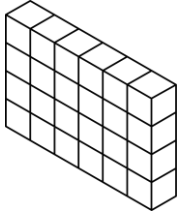
16 cubic units

H

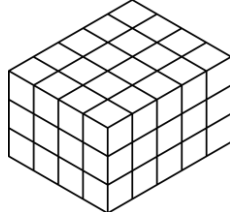
B

O

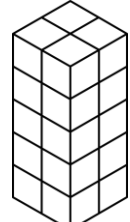
A



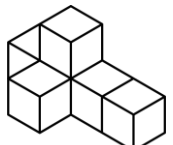
24 cubic units



60 cubic units



20 cubic units



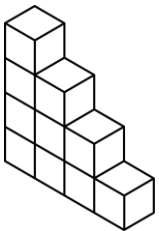
6 cubic units

N

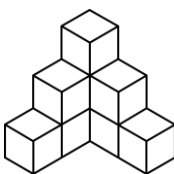
L

R

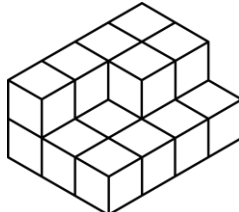
T



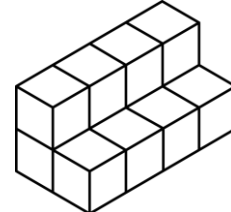
10 CU



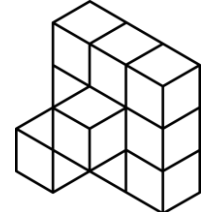
9 CU



18 CU



12 CU



11 CU

C

E

Y

S

I



ANSWER KEY – CLUE 3

Elimination Note: Cross off all rows marked with 'caused by a monster.'

| | | | |
|----------------|-----------------|----------------|----------------|
| T | H | I | S |
| $\frac{9}{50}$ | $\frac{25}{72}$ | $\frac{1}{25}$ | $\frac{1}{70}$ |

| | | |
|----------------|-----------------|----------------|
| W | A | S |
| $\frac{1}{45}$ | $\frac{1}{100}$ | $\frac{1}{70}$ |

| | | |
|----------------|---------------|----------------|
| N | O | T |
| $\frac{9}{44}$ | $\frac{1}{3}$ | $\frac{9}{50}$ |

| | | | | | |
|----------------|-----------------|----------------|----------------|----------------|----------------|
| C | A | U | S | E | D |
| $\frac{1}{10}$ | $\frac{1}{100}$ | $\frac{1}{24}$ | $\frac{1}{70}$ | $\frac{5}{12}$ | $\frac{3}{44}$ |

| | |
|----------------|----------------|
| B | Y |
| $\frac{7}{50}$ | $\frac{1}{32}$ |

| |
|-----------------|
| A |
| $\frac{1}{100}$ |

| | | | | | | |
|----------------|---------------|----------------|----------------|----------------|----------------|-----------------|
| M | O | N | S | T | E | R |
| $\frac{7}{36}$ | $\frac{1}{3}$ | $\frac{9}{44}$ | $\frac{1}{70}$ | $\frac{9}{50}$ | $\frac{5}{12}$ | $\frac{1}{144}$ |



Multiply the fractions below. Reduce (simplify) your answers to the lowest terms possible.

$$\frac{1}{4} \times \frac{1}{6} = \frac{1}{24}$$

| |
|----------|
| U |
|----------|

$$\frac{1}{10} \times \frac{1}{7} = \frac{1}{70}$$

| |
|----------|
| S |
|----------|

$$\frac{1}{8} \times \frac{1}{4} = \frac{1}{32}$$

| |
|----------|
| Y |
|----------|

$$\frac{1}{5} \times \frac{1}{9} = \frac{1}{45}$$

| |
|----------|
| W |
|----------|

$$\frac{5}{6} \times \frac{5}{12} = \frac{25}{72}$$

| |
|----------|
| H |
|----------|

$$\frac{1}{2} \times \frac{1}{5} = \frac{1}{10}$$

| |
|----------|
| C |
|----------|

$$\frac{1}{10} \times \frac{1}{10} = \frac{1}{100}$$

| |
|----------|
| A |
|----------|

$$\frac{1}{2} \times \frac{5}{6} = \frac{5}{12}$$

| |
|----------|
| E |
|----------|

$$\frac{1}{12} \times \frac{1}{12} = \frac{1}{144}$$

| |
|----------|
| R |
|----------|

$$\frac{9}{11} \times \frac{1}{4} = \frac{9}{44}$$

| |
|----------|
| N |
|----------|

$$\frac{1}{4} \times \frac{3}{11} = \frac{3}{44}$$

| |
|----------|
| D |
|----------|

$$\frac{2}{5} \times \frac{1}{10} = \frac{1}{25}$$

| |
|----------|
| I |
|----------|

$$\frac{4}{6} \times \frac{3}{6} = \frac{1}{3}$$

| |
|----------|
| O |
|----------|

$$\frac{7}{10} \times \frac{1}{5} = \frac{7}{50}$$

| |
|----------|
| B |
|----------|

$$\frac{3}{5} \times \frac{3}{10} = \frac{9}{50}$$

| |
|----------|
| T |
|----------|

$$\frac{7}{12} \times \frac{2}{6} = \frac{7}{36}$$

| |
|----------|
| M |
|----------|



ANSWER KEY – CLUE 4

Elimination Note: Cross off all rows marked with east, west, and south.

Y O U
12 20 4

F I N D
3 7 63 11

A
6

T R A I L
24 8 6 7 9

O F
20 3

T O M S
24 20 5 84

C A N D Y
90 6 63 11 12

H E A D I N G
10 153 6 11 7 63 99

N O R T H
63 20 8 24 10



Find the Greatest Common Factor of each number set below:

16 and 40 = 8
R

21 and 15 = 3
F

35 and 28 = 7
I

11 and 22 = 11
D

45 and 25 = 5
M

45 and 36 = 9
L

12, 20 and 44 = 4
U

20, 50 and 80 = 10
H

12, 18 and 24 = 6
A

Find the Least Common Multiple of each number set below:

3 and 4 = 12
Y

6 and 24 = 24
T

9 and 11 = 99
G

9 and 21 = 63
N

9 and 30 = 90
C

5 and 4 = 20
O

21 and 4 = 84
S

17 and 9 = 153
E





ANSWER KEY – CLUE 5

Elimination Note: Cross off all 'lost' rows.

| | | | | | | | | | | | |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 10 | B | T | E | M | O | P | C | W | N | Q | L |
| 9 | O | R | Y | A | V | C | D | H | G | Y | E |
| 8 | E | O | C | H | S | X | N | J | D | W | U |
| 7 | I | P | M | D | T | S | A | F | M | C | N |
| 6 | Z | P | Y | I | W | Q | G | J | R | U | A |
| 5 | O | H | T | J | I | E | K | B | X | P | S |
| 4 | H | W | T | Y | K | L | E | A | N | G | P |
| 3 | L | F | D | M | R | A | B | E | T | U | L |
| 2 | Q | R | O | P | H | M | N | S | R | S | O |
| 1 | P | H | E | I | W | T | B | I | C | A | V |
| | A | B | C | D | E | F | G | H | I | J | K |

T H E

(C,5) (H,9) (C,1)

M I S S I N G

(I, 7) (A,7) (J,2) (E, 8) (H,1) (K,7) (I, 9)

C A M P E R S

(G, 10) (K,6) (D,3) (F,10) (H,3) (I,2) (F,7)

W E R E

(E,1) (G,4) (B,9) (F,5)

K I D N A P P E D

(G,5) (D,6) (C,3) (I,4) (D,9) (D,2) (F,10) (A,8) (D,7)



ELIMINATION PROCESS

| Location of the Missing Campers | Lost or Kidnapped? | WHOWHAT Caused their disappearance? | Close or Far from the Cabins? | Positional Direction |
|---|--------------------|-------------------------------------|-------------------------------|----------------------|
| Big Foot's Den | Kidnapped | A monster | Far | North |
| Monster's Chamber | Kidnapped | A monster | Far | West |
| The Enchanted Pond | Lost | Scared by a swarm of bugs | Close | East |
| The Wishing Tree | Lost | Trapped | Close | South |
| The Druid's Temple | Kidnapped | Trapped | Far | West |
| The Fairy Huts | Kidnapped | Trapped | Close | East |
| Momo's Lair | Kidnapped | A monster | Far | North |
| The Hermit's Hideaway | Lost | Trapped | Far | North |
| The Pine Mirage | Kidnapped | A monster | Close | South |
| Echoes Lake | Lost | Scared by a swarm of bugs | Close | East |
| The Hush-Hush Mushroom | Lost | Made ill from toxic plants | Far | North |
| The Restricted Log Cabins | Lost | Trapped | Close | West |
| The Vanishing Shrub | Lost | Made ill from toxic plants | Close | South |
| The Whispering Lake | Kidnapped | A monster | Far | South |
| The Wizard's Waterfall | Lost | Scared by a swarm of bugs | Far | North |
| The Emerald Everglade | Lost | Made ill from toxic plants | Far | West |
| The Lying Labyrinth | Lost | Trapped | Close | East |
| The Witch Bird's Tricking Tree | Kidnapped | A dangerous animal | Far | West |
|  The Grumpy Gnomes' Village | Kidnapped | Trapped | Far | North |
| Riddle Cottage | Lost | Made ill from toxic plants | Far | South |
| The Wolf's Cave | Kidnapped | A dangerous animal | Far | West |

On the answer sheets you will find a comment about what needs to be crossed off. Please refer to the color of the font and the color of the shaded rows to show which locations have been crossed off from that clue.

MYSTERY ANSWER: The Grumpy Gnomes' Village