Hello everyone! It's time for summer math! It's designed to help students maintain their math skills during the summer break. Research shows that all students experience learning losses during the summer when they do not engage in educational activities. On average, students lose approximately 2.6 months of grade level equivalency in mathematical computations during the summer months (Harvard Graduate School of Education).

If students get stuck, I encourage them to use Khan Academy to help them work through the skills.

For extra motivation, students that complete it and bring it back will earn extra credit! Remember, this is not mandatory, but this is a great resource to keep students sharp for the next school year and it's a great opportunity for bonus points next school year! The deadline to turn it in is August 8, 2024, the first day of school. Make the most of this opportunity and let's start the new school year strong!

1.

MINI - MATH MYSTERY

Mrs J's Resource Creations ©

The Case of the Beach Bandit

Adding and Subtracting Decimals

Hi Detective, a bandit is going around the beach stealing peoples' towels, bags, hats, and valuables! Many folks are sad to find out that their belongings are disappearing after going for a swim. Help us figure out who is the Beach Bandit!

Instructions: Solve the math questions and look for your answers in the box images. Eliminate each box image that contains a matching answer. After answering all questions, only one image will remain (that image will contain a number that didn't match any of your answers) and that box is the solution to that part of the mystery.

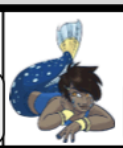
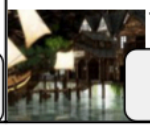
WHO is the Beach Bandit?

Goldilocks 9.33	Moana 7.266	Tori the Turtle 6.077	Carlos 12.533	Dash the Dog 2.973
Ned the Ninja 4.149	Mike the Magician 4.89	Jaryaya the Troll 10.08	Penny the Pirate 5.145	Sydney the Seagull 6.86

$$\begin{array}{r} 4.67 \\ +\ 2.19 \\ \hline \end{array} \qquad \begin{array}{r} 4.45 \\ +\ 1.627 \\ \hline \end{array} \qquad \begin{array}{r} 6.04 \\ -\ 1.15 \\ \hline \end{array} \qquad \begin{array}{r} 3.205 \\ -\ 0.232 \\ \hline \end{array} \qquad \begin{array}{r} 8.97 \\ +\ 3.563 \\ \hline \end{array}$$

$$\begin{array}{r} 8.031 \\ -\ 0.765 \\ \hline \end{array} \qquad \begin{array}{r} 2.38 \\ +\ 2.765 \\ \hline \end{array} \qquad \begin{array}{r} 7.38 \\ -\ 3.231 \\ \hline \end{array} \qquad \begin{array}{r} 5.92 \\ +\ 4.16 \\ \hline \end{array}$$

WHERE is the thief hiding with the stolen items?

Under the Sea 8.5	Shimmering Shores Lighthouse 8.23	Mermaid's Grotto  8.78	The Tallest Coconut Tree 6.744	Freddy's Fish Shop 8.04
Barnacle Beach 0.332	The Ice Cream Truck 8.87	The Pizza Shop 4.703	Tale Town Docks 8.17	Pirate Cove  0.238

$$\begin{array}{r} 7.92 \\ +\ 0.95 \\ \hline \end{array} \qquad \begin{array}{r} 10.4 \\ -\ 1.62 \\ \hline \end{array} \qquad \begin{array}{r} 4.43 \\ +\ 3.61 \\ \hline \end{array} \qquad \begin{array}{r} 0.765 \\ -\ 0.527 \\ \hline \end{array} \qquad \begin{array}{r} 8.11 \\ +\ 0.39 \\ \hline \end{array}$$

$$\begin{array}{r} 6.224 \\ -\ 1.521 \\ \hline \end{array} \qquad \begin{array}{r} 2.718 \\ +\ 4.026 \\ \hline \end{array} \qquad \begin{array}{r} 5.255 \\ -\ 4.923 \\ \hline \end{array} \qquad \begin{array}{r} 7.38 \\ +\ 0.85 \\ \hline \end{array}$$

2.

MINI - MATH MYSTERY

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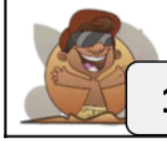
The CASE OF THE ICKY ICE-CREAM

Multiplying Decimals

Hi Detective, someone keeps breaking into my Ice-Cream shop, adding yucky ingredients to make my ice-cream taste icky! All of my customers are complaining. The icky ice-cream is going to ruin my business. Please help me find out who is doing this to my ice-cream shop!

Instructions: Solve the math questions and look for your answers in the box images. Eliminate each box image that contains a matching answer. After answering all questions, only one image will remain (that image will contain a number that didn't match any of your answers) and that box is the solution to that part of the mystery.

WHO is making the Ice-Cream Icky?

Willy Wonka 5.4	Molly the Monster 19.2	Chuck the Groundhog 20.4	Crumpet the Crab 21	Sydney the Seagull 2.6
Samuel the Lifeguard  18.5	Charlese 15.6	Hooty the Owl 9.9	Penny the Pirate 21.6	Dan the Dragon 6.4

2 X 1.3 = _____ 5 X 3.7 = _____ 4 X 1.6 = _____

8 X 2.4 = _____ 3 X 3.3 = _____ 2 X 7.8 = _____

5 X 4.2 = _____ 6 X 0.9 = _____ 8 X 2.7 = _____

WHERE is the Icky Ice-Cream Culprit hiding?

Barnacle Beach 0.07	On a small boat 0.3	The Ice Cream Truck 0.54	The Pizza Shop 0.35	Freddy's Fish Shop 0.01
Flightless Folly Ship 0.56	Wattle Wharf 0.14	Whispering Woods 0.04	The Hot Dog Stand 0.28	The Grand Resort 0.5

0.6 X 0.9 = _____ 0.7 X 0.4 = _____ 0.1 X 0.1 = _____

0.7 X 0.8 = _____ 0.1 X 0.7 = _____ 0.5 X 0.7 = _____

0.7 X 0.2 = _____ 0.6 X 0.5 = _____ 0.2 X 0.2 = _____

3. **MINI - MATH MYSTERY** Mrs J's Resource Creations ©

The Case of the Wishing Watermelon

Order of Operations

Psst, Detective, I have a secret and a serious problem. I was meant to be guarding the amazing Wishing Watermelon that grants real wishes during the summer. I was exhausted and fell asleep on duty. When I woke up, the Wishing Watermelon was gone! Please help me find it before it's too late. Wishes in the wrong hands can cause chaos!

Instructions: Solve the math questions and look for your answers in the box images. Eliminate each box image that contains a matching answer. After answering all questions, only one image will remain (that image will contain a number that didn't match any of your answers) and that box is the solution to that part of the mystery.

WHO took the Wishing Watermelon?

Dan the Dragon 27	Crumpet the Crab 44	Moana 90	Toto The Dog 31	Bert the Big Bad Wolf 50
Captain Perguin 47	Sydney the Seagull 66	Fred the Frog Prince 54	Ursula 28	Samuel the Lifeguard 92
Jabari 84	The Cheshire Cat 35	Mr. Fox 41	Gabby 80	Pete Piggles 55

100 – (50 ÷ 5) X 2 = _____

(20 X 2) – (36 ÷ 4) = _____

50 + 6 X (11 – 4) = _____

9 X 3 + (20 – 18) X 4 – 8 = _____

88 – (25 – 9) ÷ (2 + 2) = _____

10 X 7 – (9 + 3 + 8) ÷ 5 = _____

8 X 8 – (7 + 4) + 2 = _____

(8 ÷ 2 + 6) X (20 – 11) = _____

5 + (240 ÷ 6) – (2 X 5) = _____

6 X (90 ÷ 10) – (5 + 5) = _____

(19 + 2) ÷ (9 -2) + 25 = _____

4 X (100 ÷ 5) – (3 X 11) = _____

(37 – 25) X 3 – (58 – 4) ÷ 6 + 14 = _____

(5 X 5) X (40 ÷ 10) – 50 = _____

4. **MINI - MATH MYSTERY** Mrs J's Resource Creations ©

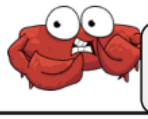
The Case of the Sandcastle Smasher

Adding & Subtracting Fractions

It was a glorious summer's day at Sandy Shores Beach. That was until someone nasty decided to sneak around and smash the beautiful sandcastles that so many people worked hard to build! It won't be long before the Sandcastle Smasher strikes again to ruin someone's sandcastle masterpiece. Detective, help us put a stop to this once and for all!

Instructions: Solve the math questions and look for your answers in the box images. Eliminate each box image that contains a matching answer. After answering all questions, only one image will remain (that image will contain a number that didn't match any of your answers) and that box is the solution to that part of the mystery.

WHO is the Sandcastle Smasher?

Baby Bear $\frac{7}{10}$	Pelican Paul $\frac{31}{35}$	Rumpelstiltskin $\frac{8}{9}$	Sally the Seal $\frac{3}{20}$	Dude the Surfer Dog $\frac{7}{36}$
Crumpet the Crab  $\frac{9}{20}$	Fiona the Fairy $1\frac{17}{24}$	Ned the Ninja $\frac{7}{24}$	Hooty the Owl $1\frac{5}{22}$	Mittens the Cat $1\frac{1}{2}$
Mrs. Pots $\frac{11}{24}$	Captain Redbeard $\frac{5}{12}$	Pikabot $\frac{4}{15}$	Zinar the Troll $\frac{7}{50}$	Herb the Hermit Crab $1\frac{1}{6}$

Find the sum or the difference of the fractions below. Reduce (simplify) your answers to the lowest terms, and write as a mixed number if possible.

$\frac{1}{3} + \frac{1}{8} =$ ☐ $\frac{2}{6} + \frac{5}{9} =$ ☐ $\frac{6}{8} + \frac{3}{4} =$ ☐

$\frac{2}{3} - \frac{2}{5} =$ ☐ $\frac{9}{10} - \frac{1}{5} =$ ☐ $\frac{4}{9} - \frac{2}{8} =$ ☐

$\frac{2}{3} + \frac{1}{2} =$ ☐ $\frac{7}{8} + \frac{5}{6} =$ ☐ $\frac{1}{2} + \frac{8}{11} =$ ☐

$\frac{3}{4} - \frac{2}{6} =$ ☐ $\frac{8}{20} - \frac{1}{4} =$ ☐ $\frac{16}{25} - \frac{2}{4} =$ ☐

$\frac{2}{7} + \frac{6}{10} =$ ☐ $\frac{5}{8} - \frac{2}{6} =$ ☐

5. **MINI - MATH MYSTERY** Mrs J's Resource Creations ©

Fractions vs Decimals

The CASE OF THE BOAT BURGLARY

Bastian usually docks his brilliant boat at Wattle Wharf. He takes it out daily to sail across the sea. Sadly, sometime during the night, a burglar stole Bastian's boat! No one has reported seeing it anywhere! Bastian is super sad about the boat burglary. We need your help, Detective, to solve who the Boat Burglar is and where they are hiding with Bastian's boat.

Instructions: Solve the math questions and look for your answers in the box images. Eliminate each box image that contains a matching answer. After answering all questions, only one image will remain (that image will contain a number that didn't match any of your answers) and that box is the solution to that part of the mystery.

WHO is the Boat Burglar?

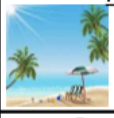
Rumpelstiltskin 61.01	Ned the Ninja 61.1	Little Red 67.4	Penny the Pirate 6.59	Polly the Parrot 65.08
Mikey the Mouse 60.14	Captain Hook 6.04	Dan the Dragon 67.47	Moana 61.11	Tommy the Pirate 60.8

Convert the mixed numbers below to decimals.

$60\frac{14}{100}$ = _____ $67\frac{4}{10}$ = _____ $61\frac{1}{100}$ = _____ $60\frac{8}{10}$ = _____

$67\frac{47}{100}$ = _____ $65\frac{8}{100}$ = _____ $61\frac{1}{10}$ = _____ $6\frac{59}{100}$ = _____ $6\frac{4}{100}$ = _____

WHERE is the burglar hiding with the boat?

Wattle Wharf $\frac{5}{10}$	Coconut Island $\frac{2}{100}$	Turtle Shores $\frac{9}{100}$	Paradise Bay  $\frac{99}{100}$	Tale Town's Docks $\frac{3}{10}$
Mermaid's Grotto $\frac{3}{100}$	Dolphin Island $\frac{2}{10}$	Shimmering Shores Lighthouse $\frac{57}{100}$	Bermuda Triangle $\frac{65}{100}$	Pirate Cove $\frac{25}{100}$

Convert the decimals to fractions.

0.5 = _____ 0.65 = _____ 0.02 = _____

0.57 = _____ 0.3 = _____ 0.25 = _____

0.99 = _____ 0.2 = _____ 0.09 = _____

6. **MINI - MATH MYSTERY** Mrs J's Resource Creations ©

The CASE OF THE STOLEN SUNGLASSES

Multiplying Fractions

Suzie Sunshine reported that someone stole her expensive sunglasses! She was at Paradise Pools when she left her sunglasses on a table to swim in the large waterfall pool. Suzie stated, "After swimming, I returned to my table and instantly noticed that my sunglasses were no longer next to my towel! I spent hundreds of dollars on those sunglasses. Please, I need the help of a detective to solve this crime."

Instructions: Solve the math questions and look for your answers in the box images. Eliminate each box image that contains a matching answer. After answering all questions, only one image will remain (that image will contain a number that didn't match any of your answers) and that box is the solution to that part of the mystery.

WHO stole Suzie's Sunglasses?

Ariel the Mermaid $\frac{1}{56}$	Aaron $1\frac{3}{4}$	Mikey the Mouse $\frac{1}{8}$	Dash the Dog $1\frac{1}{5}$	Bert the Big Bad Wolf $\frac{5}{9}$
Sleepy the Dwarf $2\frac{11}{12}$	Polly the Parrot $3\frac{1}{2}$	Marvin the Monster $\frac{27}{32}$	Moana $\frac{9}{40}$	Crumpet the Crab $\frac{7}{40}$
Shaun the Angry Shrimp $4\frac{1}{2}$	Fancy the Fairy $4\frac{2}{3}$	Sydney the Seagull $\frac{5}{8}$	Scout Akio $1\frac{2}{5}$	Pete Piggles $\frac{2}{9}$

Multiply the fractions below. Reduce (simplify) your answers to the lowest terms and write as a mixed number if possible.

$\frac{5}{6} \times \frac{3}{4} =$ ☐ $\frac{9}{20} \times \frac{1}{2} =$ ☐ $\frac{8}{12} \times \frac{1}{3} =$ ☐

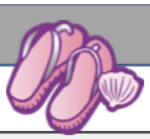
$\frac{3}{6} \times \frac{7}{20} =$ ☐ $\frac{1}{8} \times \frac{2}{14} =$ ☐ $\frac{15}{20} \times \frac{2}{12} =$ ☐

$3\frac{1}{2} \times \frac{3}{6} =$ ☐ $3\frac{2}{6} \times \frac{1}{6} =$ ☐ $3\frac{5}{10} \times \frac{2}{5} =$ ☐

$2\frac{3}{12} \times \frac{3}{8} =$ ☐ $2\frac{2}{5} \times \frac{2}{4} =$ ☐ $1\frac{1}{6} \times 2\frac{6}{12} =$ ☐

$2\frac{1}{2} \times 1\frac{4}{5} =$ ☐ $3\frac{1}{3} \times 1\frac{4}{10} =$ ☐

7. **MINI - MATH MYSTERY** Mrs J's Resource Creations ©



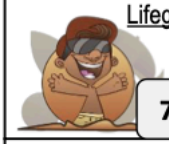
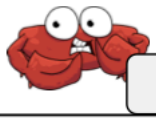
The Case of the Flip-Flop Frenzy

Rounding Numbers

Detective, we need your help urgently! Someone has gone silly and is going around the beach, breaking everyone's flip-flops! Many swimmers and surfers have reported returning to their belongings to find that someone broke their flip-flops and left them behind in pieces. "Who would do such a wild thing?" asked Moana, who is one of the victims of this Flip-Flop Frenzy. We must stop this thoughtless and destructive behavior! Please help us find the culprit behind this Flip-Flop Frenzy!

Instructions: Solve the math questions and look for your answers in the box images. Eliminate each box image that contains a matching answer. After answering all questions, only one image will remain (that image will contain a number that didn't match any of your answers) and that box is the solution to that part of the mystery.

WHO is going about breaking flip-flops on the beach?

Samuel the Lifeguard  75,460	Hooty the Owl 75,700	Ricky the Robot 76,000	Fancy the Fairy 73,200	Hansel 71,000
Dash the Dog 7,600	Crumpet the Crab  8,000	Bert the Big Bad Wolf 77,000	Sally the Seal 7,000	Marvin the Monster 75,400

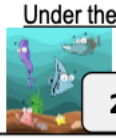
Round the numbers below to the accuracy of the underlined digit.

73,<u>2</u>26 = _____ <u>7</u>,698 = _____ 7<u>5</u>,520 = _____

75,4<u>5</u>8 = _____ 7,<u>0</u>19 = _____ 7<u>0</u>,744 = _____

75,<u>6</u>62 = _____ 7<u>7</u>,492 = _____ 7,<u>5</u>53 = _____

WHERE will you find the culprit hiding?

The Pizza Shop 3,000	Wattle Wharf 25,900	Whispering Woods 21,000	Monster Mountain 30,000	The Grand Resort 27,100
The Hot Dog Stand 24,000	The Happy Hotel 24,120	Under the Sea  22,000	The Lemonade Truck 2,000	Flightless Folly Ship 20,000

Round the numbers below to the accuracy of the underlined digit.

24,1<u>1</u>9 = _____ 2<u>1</u>,896 = _____ 25,<u>8</u>50 = _____

<u>2</u>,618 = _____ <u>2</u>0,124 = _____ 2<u>4</u>,356= _____

27,<u>0</u>90 = _____ <u>2</u>,427 = _____ 2<u>9</u>,939 = _____

8. **MINI - MATH MYSTERY** Mrs J's Resource Creations ©

The CASE OF THE POOL PROBLEM

Multiply/Divide Decimals by a Power of Ten

Hi Detective, something super gross happened this afternoon at The Grand Resort's pool. The pool water was sparkling clean all day, when suddenly, in the afternoon, it was found with clumps of slimy green goo. The goo quickly made all of the water turn green, which freaked out all of the hotel guests. Con, the Concierge, stated, "Someone must've put the slime into the pool, we've never had such a disgusting problem. I don't know how else the slime could have gotten in the water."

Instructions: Solve the math questions and look for your answers in the box images. Eliminate each box image that contains a matching answer. After answering all questions, only one image will remain (that image will contain a number that didn't match any of your answers) and that box is the solution to that part of the mystery.

WHO is responsible for this yucky pool problem?

Bert the Big Bad Wolf **80.9**	Marvin the Monster **3.41**	Tommy the Pirate **89**	Professor Berry **0.94**	Boogie Bob **3.04**
Ariel the Mermaid **0.034**	Dan the Dragon **0.115**	Fuzzy the Monster **0.33**	Dash the Dog **5.16**	Tina the Turtle **0.0089**
Fred the Frog Prince **0.0807**	Alice the Alien **3**	Willy Wonka **150**	Ju the Gnome **9,410**	Wolf Wildfire **8.7**

0.3 X 10 = _____ 0.89 X 100 = _____ 0.87 X 10 = _____

3.4 ÷ 100 = _____ 9.4 ÷ 10 = _____ 8.9 ÷ 1,000 = _____

1.5 X 100 = _____ 8.09 X 10 = _____ 94.1 X 100 = _____

3.3 ÷ 10 = _____ 11.5 ÷ 100 = _____ 80.7 ÷ 1,000 = _____

0.516 X 10 = _____ 34.1 ÷ 10 = _____

9.

MINI - MATH MYSTERY

Mrs J's Resource Creations ©

The CASE OF THE BEACH BURGER BLUNDER

Long Division

Many customers are disappointed and angry with Barry's Beachside Burger Restaurant. Somehow all of the orders were mixed-up, and everyone received a burger that they didn't purchase! The complaints keep rolling in, and everyone wants a refund. Barry, the restaurant owner, is worried about his reputation. He stated, "Someone must be mixing up all of the orders. I'm not sure if it is one of the restaurant staff or an outsider. I need a detective to figure out who is behind this burger blunder."

Instructions: Solve the math questions and look for your answers in the box images. Eliminate each box image that contains a matching answer. After answering all questions, only one image will remain (that image will contain a number that didn't match any of your answers) and that box is the mystery solution.

WHO is responsible for the Burger Blunder?

Hooty the Owl **27 R 12**	Ireena **12 R 1**	Jake **6 R 10**	Polly the Parrot **7 R 46**	Juan **30 R 15**
Sydney the Seagull **44 R 5**	Charlotte **33 R 2**	R4D4 the Robot **23 R 5**	Tomita **85 R 4**	Mikey the Mouse **5 R 0**
Ned the Ninja **3 R 9**	Dan the Dragon **11 R 5**	Penny the Pirate **31 R 15**	Lola **6 R 1**	Mateo **3 R 14**

$14\overline{)94}$ $15\overline{)59}$ $18\overline{)90}$ $11\overline{)489}$ $8\overline{)684}$

$12\overline{)145}$ $24\overline{)735}$ $30\overline{)945}$ $17\overline{)563}$ $14\overline{)327}$

$28\overline{)768}$ $50\overline{)159}$ $45\overline{)271}$ $70\overline{)536}$