5th Grade Math

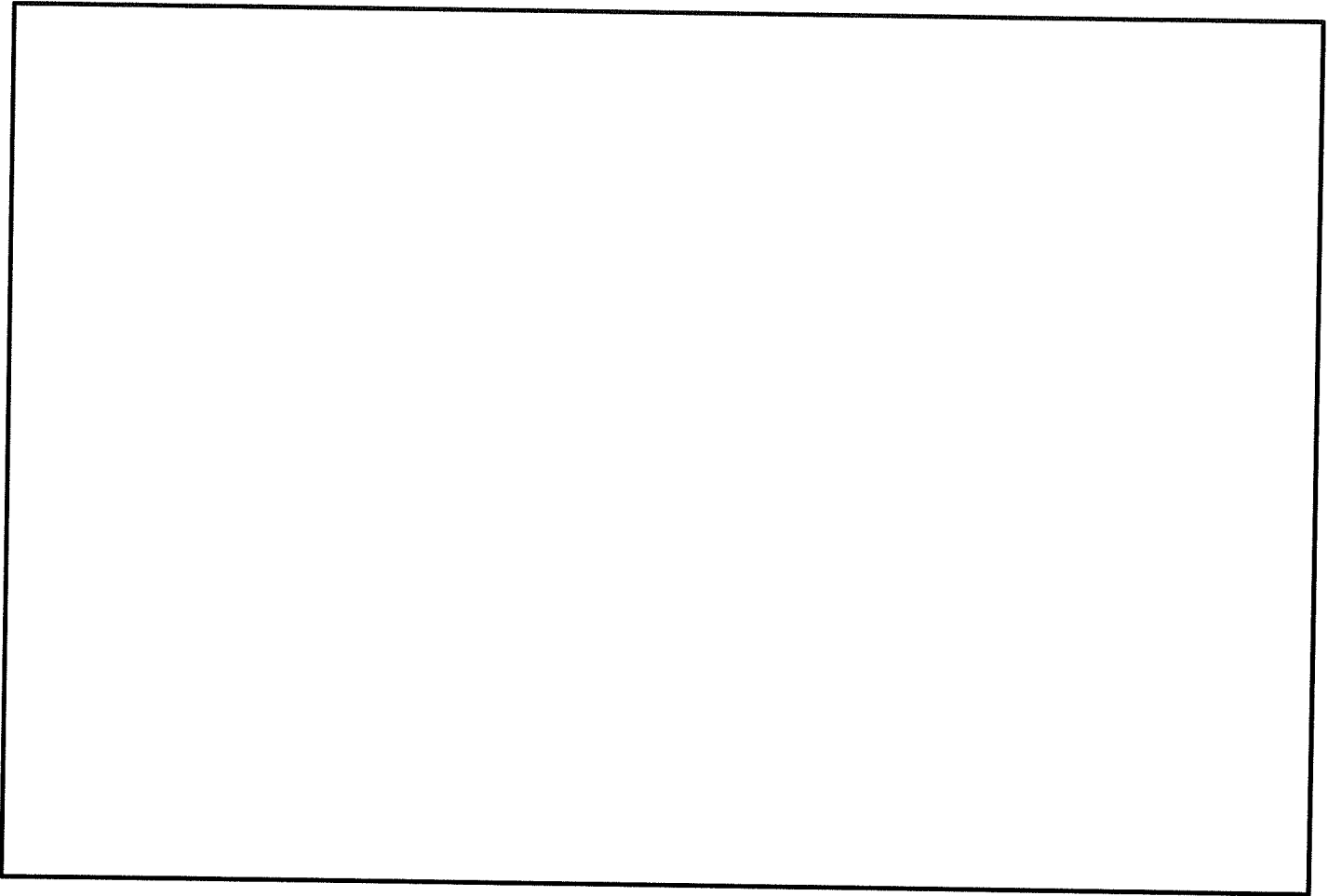## Week of December 21 - December 23, 2020

Jingle bells!

Name _____

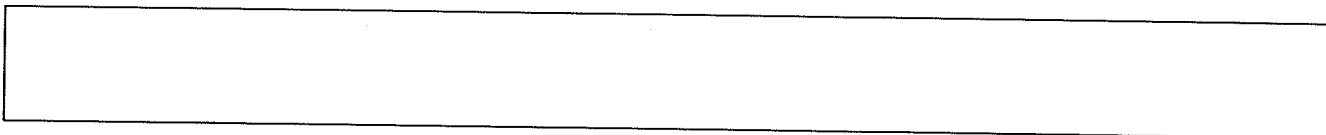* Please do not complete until advised by teacher*

December 21, 2020

Kayla is getting new carpeting for her room. The dimensions of her floor are 9.6 feet by 8.5 feet. What will the cost of the carpet be if it is $15 per square foot?
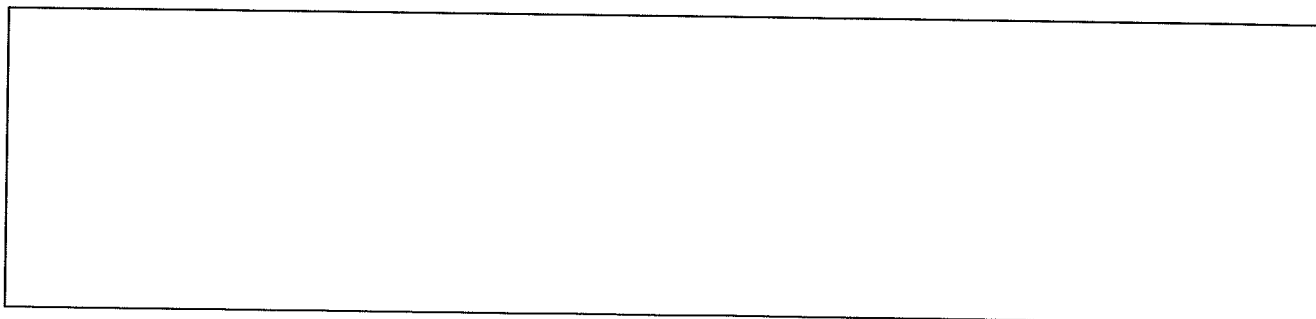
Answer (with unit): _____

Equation that matches your work:

Explain your thinking:

Student Name:

Date :

Question 1
Select all of the following equations the number 80 will make true.

☐ $320 \div \square = 40$

☐ $4{,}800 \div \square = 60$

☐ $7{,}200 \div \square = 900$

☐ $1{,}600 \div \square = 200$

☐ $3{,}200 \div \square = 40$

Question 2
Which of the following is the best estimate of $572 \div 28$?

○ 10

○ 12

○ 20

○ 30

Question 3a

Danielle picks 744 apples at an apple orchard. She divides the apples equally into 40 baskets.

Part A

When dividing 744 ÷ 40, the first digit of the quotient will be in what place?

○   Hundreds

○   Tens

○   Ones

○   Thousands

Question 3b

Part B

How many apples will be in each basket? Enter your answer in the box.
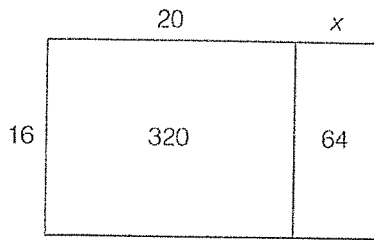
| |
| -------------- | apples

Question 3c

Part C

How many apples will be left? Enter your answer in the box.

| |
| -------------- | apples

Question 4a

A theater has 384 seats. Each row has 16 seats. The area model represents this situation.

	20	x
16	320	64

Part A

What is the value of x in the area model? Enter your answer in the box.

$x =$ [   ]

Question 4b
Part B

How many rows of seats are inside the theater? Enter your answer in the box.

[   ] rows

Question 5a
Part A
Solve $4{,}500 \div 90$. Enter your answer in the box.

[   ]

Question 5b
Part B
Select all the expressions that are equal to $4{,}500 \div 90$.

☐ A. $4{,}500 \div 9$ tens

☐ B. $450 \div 90$

☐ C. $450 \div 9$

☐ D. $4{,}500 \div 9$

☐ E. $4{,}500 \div 90$ tens

Question 6

Match each expression with its quotient.

	900	9	90	150
4,500 ÷ 30	☐	☐	☐	☐
4,500 ÷ 5	☐	☐	☐	☐
450 ÷ 50	☐	☐	☐	☐
450 ÷ 5	☐	☐	☐	☐

Question 7a

Morgan is reading a 326-page book. The table shows three different plans to finish the book.

Plan	Pages to Read Each Day	Number of Days Needed
A	10	33
B	20	?
C	30	11

Part A

Using Plan B, how many days will it take Morgan to finish her book? Enter your answer in the box.

| | days

Question 7b

Part B

Which explains how to find the number of days it will take Morgan to finish her book using Plan B? Select all that apply.

☐ A.

Multiply 20 × 16 to get 320, which is not enough days. So multiply 20 × 17 to get 340, which is enough days.

☐ B.

Since 20 pages is halfway between 10 and 30 pages, the number of days must be halfway between 33 and 11 days.

☐ C.

Since 10 pages are added each day from Plan A to Plan B, 10 days must be subtracted from the number of days needed in Plan A.

☐ D.

Divide 326 ÷ 20 to get 16 R6. Round the quotient to the next greater whole number.

☐ E. Divide 326 ÷ 20 to get 17 R6. Round the quotient to the next greater whole number.

Question 8a

Fulton Gardens buys 6,300 flower bulbs. If 70 bulbs can be planted in each flower bed, how many flower beds are needed to plant all the bulbs?

Part A

Identify which expression represents the problem.

○ A. 6,300 + 70

○ B. 70 ÷ 6,300

○ C. 70 × 6,300

○ D. 6,300 ÷ 70

Question 8b

Part B

How many flower beds are needed to plant all the bulbs? Enter your answer in the box.

| flower beds

Question 9

Nick divides 527 baseball cards evenly into 17 stacks. How many baseball cards are in each stack? Use the model.

Enter your answer in the box.

	baseball cards

Question 10

Adam divides $32\overline{)8{,}032}$. In which place should he write the first digit of the quotient?

○ A.
   Ones

○ B.
   Tens

○ C.
   Hundreds

○ D.
   Thousands

Question 11a

Liz wants to find 5,292 ÷ 36.

Part A

In which place should she write the first digit of the quotient?

○ A.

    Ones

○ B.

    Tens

○ C.

    Hundreds

○ D.

    Thousands

Question 11b

Part B

Explain how to decide where to write the first digit of the quotient.

Enter one of these values in each of the answer boxes: **1, 10, 100,** or **1,000.** The same value may be used in more than one answer box.

36 × [   ] = 3,600 and 36 × [   ] = 36,000.

Since 5,292 is between 3,600 and 36,000, the quotient is between [   ] and
[   ].

Question 12a

An orange grove has 858 trees. There are 33 rows, each with the same number of trees.

Part A

Which of the following expressions represents the problem?

○ A. 858 + 33

○ B. 858 ÷ 33

○ C. 858 x 33

○ D. 858 ÷ 2

Question 12b

Part B

How many trees are in each row?

○ A. 24 trees

○ B. 22 trees

○ C. 26 trees

○ D. 28 trees

Question 13

Kris is setting up tables for an awards banquet. Each table seats 16 people. What is the fewest number of tables

Kris needs to set up for 132 people?

○ A. 6 tables

○ B. 7 tables

○ C. 8 tables

○ D. 9 tables

Question 14a

A tire company paid $4,992 for 64 tires.

Part A

Which expression shows the best estimate for the cost of each tire using compatible numbers?

○ A. 5,000 ÷ 50

○ B. 5,000 ÷ 60

○ C. 4,200 ÷ 60

○ D. 4,800 ÷ 60

Question 14b

Part B

Which is the most reasonable estimate for the cost of each tire?

○ A. $70

○ B. $80

○ C. $90

○ D. $100

Question 15a

Leigh and Sara paid $1,178 last month to rent their apartment. Last month had 31 days. They divide to find out how much they paid per day.

```
        ?  ← second partial quotient
       ?? ← first partial quotient
  31)1178
   -  930
      248
   -  248
        0
```

Part A

What is the first partial quotient? Enter your answer in the box.

```
┌─────────────┐
│             │
└─────────────┘
```

Question 15b

Part B

What is the second partial quotient? Enter your answer in the box.

```
┌─────────────┐
│             │
└─────────────┘
```

Question 16a
Charlie has 468 onions to sell. He puts 12 onions in every bag, and he sells the bags for $8 each.

Part A
Which of the following equations can Charlie use to find the amount of money he will earn, t, if he sells all of the bags, b? Select all that apply.

☐ A. $468 \div 8 = b$

☐ B. $468 \div 12 = b$

☐ C. $b \times 8 = t$

☐ D. $b \div 8 = t$

☐ E. $12 \times b = t$

Question 16b
Part B
How much will Charlie earn if he sells all of the bags? Enter your answer in the box.

$ [_____]

Question 17
Select all of the following equations the number 30 will make true.

☐ A. $270 \div \square = 9$

☐ B. $1,200 \div \square = 400$

☐ C. $9,000 \div \square = 300$

☐ D. $600 \div \square = 200$

☐ E. $330 \div \square = 110$

Question 18

Match each expression to the correct product.

	150	15	13	130
650 ÷ 50	☐	☐	☐	☐
7,500 ÷ 50	☐	☐	☐	☐
6,500 ÷ 50	☐	☐	☐	☐
750 ÷ 50	☐	☐	☐	☐

Question 19a

A professional quarterback passed for 4,383 yards in 16 games in one football season. He wants to know his passing yardage per game, assuming he passed for the same number of yards each game.

Part A

Identify which expression represents the problem.

○ A. 4,384 × 16

○ B. 4,384 – 16

○ C. 4,384 ÷ 16

○ D. 4,384 ÷ 10

Question 19b

Part B

If he passed for the same number of yards each game, how many yards did he pass for in each game?

Enter your answer in the box.

☐ yards

Question 20

Courtney needs to find 2,495 ÷ 48. In which place should she write the first digit of the quotient?

○ A.
   Ones

○ B.
   Tens

○ C.
   Hundreds

○ D.
   Thousands

Question 21

Which partial quotients could be added to find 396 ÷ 12?

○ A. 20 and 4

○ B. 20 and 8

○ C. 30 and 3

○ D. 30 and 8

Question 22a

A soccer team sells three items for a fundraiser. The table shows the total sales for the items. The team gets to keep $1 for every $10 in total sales.

Item	Total Sales
Hats	$196
T-shirts	$504
Sweatshirts	$420

Part A

If t is the total sales and k is the amount of money the team gets to keep, which equations can be used to find the amount the team gets to keep?
Select all that apply.

☐ A. $t \div 10 = k$

☐ B. $k \div t = 10$

☐ C. $10 \times t = k$

☐ D. $t = 10 \times (196 + 504 + 420)$

☐ E. $196 + 504 + 420 = t$

Question 22b
Part B

How much money does the team get to keep? Enter your answer in the box.
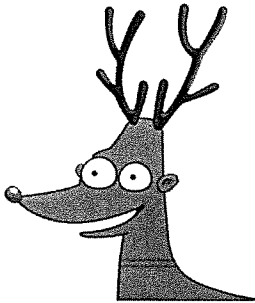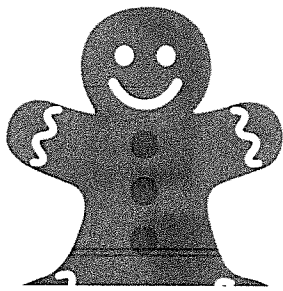
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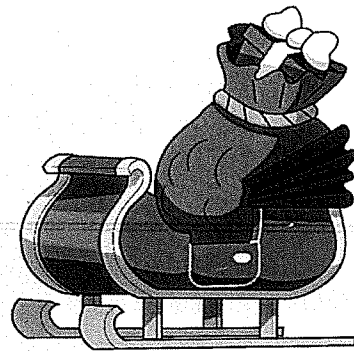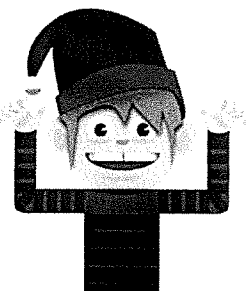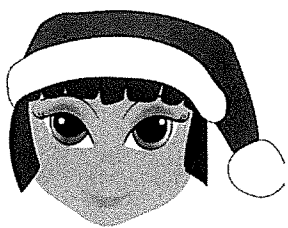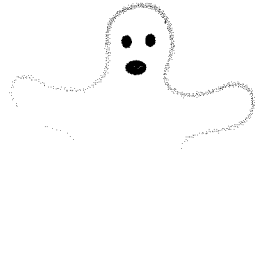

CHRISTMAS

WHO STOLE SANTAS SLEIGH??

CRIME SCENE INVESTIGATION

Yesterday a terrible thing happened – Santa's sleigh was stolen!

Santa needs your help to find out who stole his sleigh – he needs it back before Christmas. You must succeed or else there will be no Christmas this year.

The most likely suspects were gathered up and are shown below, one of these suspects committed the crime. Use the evidence on the following pages to find out which one.

RUDOLPH	GINGERBREAD MAN	SANTA'S ELF	MRS CLAWS
FROSTY	CHRISTMAS GHOST	PENGUIN PAUL	CHRISTMAS BEAR

THE POLICE HAVE FOUND FOUR CLUES WHICH CAN BE SEEN ON THE FOLLOWING PAGES

AFTER YOU HAVE SOLVED EACH CLUE COME BACK HERE TO CROSS PEOPLE OFF THE SUSPECT LIST UNTIL YOU HAVE FOUND THE CRIMINAL

HIDDEN MESSAGE

At the scene of the crime Santa found a note with a hidden math message.

Solve the problems, then fill in the message spaces with the letters that match the correct answers to read the secret message. This will let you cross off one person from the suspect list.

A 4X5	B 3X2	C 7X2	D 4X3	E 5X5	F 9X3	G 6X4
H 8X2	I 7X3	J 4X8	K 5X6	L 7X8	M 6X3	N 8X5
O 9X6	P 6X6	Q 7X9	R 2X4	S 3X3	T 9X9	U 3X5
V 8X8	W 2X2	X 6X8	Y 9X10	Z 4X7		

___ ___ ___ ___ ___   ___   ___ ___ ___ ___   ___ ___ ___
9   54   8   8 90   21   81 54 54 30   81 16 25

___ ___ ___ ___ ___ ___   ___   ___ ___ ___ ___ ___ ___   ___ ___.
9   56 25 21 24 16   21   40 25 25 12 25 12   21 81

___ ___ ___ ___ ___ ___ ___   ___ ___ ___   ___ ___ ___ ___ ___ ___ ___
8   15 12 54 56 36 16   16 20 12   40 54 81 16 21 40 24

___ ___   ___ ___   ___ ___ ___ ___   ___ ___.
81 54   12 54   4   21 81 16   21 81

CROSS THIS PERSON OFF YOUR SUSPECT LIST.

MAGIC TO FLY

The sleigh requires magic to fly. Whoever stole the sleigh must have had enough magic power to get it flying. None of the suspects has any magic power within them – however they all have magic objects which could be used to make it fly. Each magic object has magic points and the sleigh requires at least 30 magic points to fly.

Cross off any suspect who has a total of less than 30 magic points off the suspect list.

Magic lollipop	Candy Cane	Magic cookie	Toy	Magic coat
1 magic point	2 magic points	3 magic points	4 magic points	5 magic points

Hint: To calculate magic points multiply number of object by amount of magic points it has.
e.g. Three candy canes = 3 x 2 = 6 magic points.

Rudolph had:
9 magic lollipops = _____ magic points

5 magic cookies = _____ magic points

2 magic coats = _____ magic points

Total magic points _____

Gingerbread Man had:
5 candy canes = _____ magic points

2 magic cookies = _____ magic points

4 toys = _____ magic points

Total magic points _____

Santa's Elf had:
7 magic lollipops = _____ magic points

2 candy canes = _____ magic points

3 magic coats = _____ magic points

Total magic points _____

Mrs Claws had:
1 magic cookie = _____ magic points

3 toys = _____ magic points

4 magic coats = _____ magic points

Total magic points _____

Frosty had:
8 candy canes = _____ magic points

4 magic cookies = _____ magic points

2 toys = _____ magic points

Total magic points _____

Christmas Ghost had:
13 magic lollipops = _____ magic points

3 candy canes = _____ magic points

3 magic cookies = _____ magic points

Total magic points _____

Penguin Paul had:
5 magic lollipops = _____ magic points

3 magic cookies = _____ magic points

2 toys = _____ magic points

1 magic coat = _____ magic points

Total magic points _____

Christmas Bear had:
8 magic lollipops = _____ magic points

3 magic cookies = _____ magic points

6 toys = _____ magic points
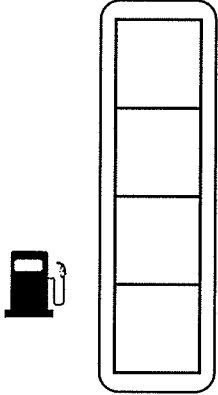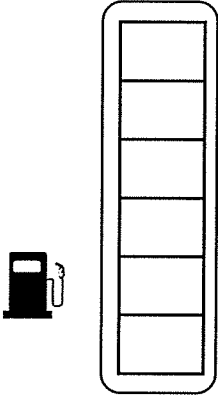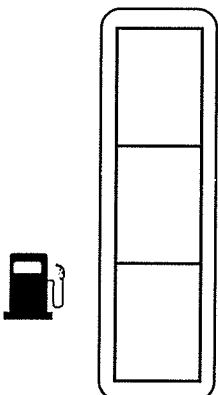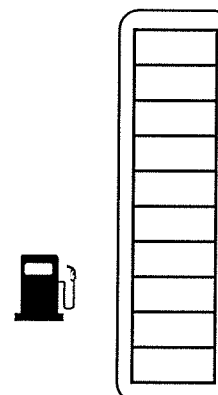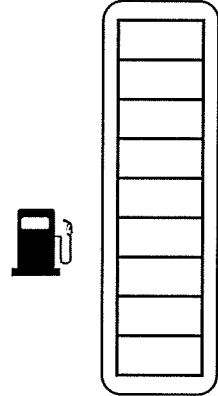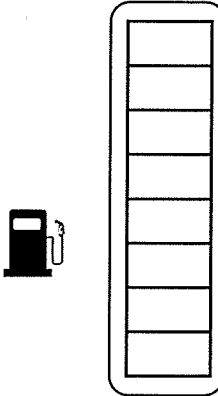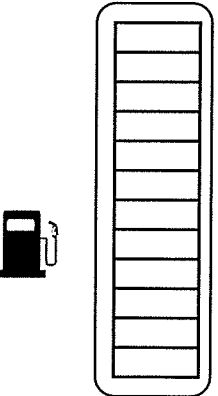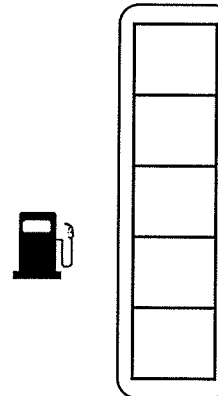
2 magic coat = _____ magic points

Total magic points _____

Cross off any suspect who has less than 30 magic points off the suspect list.

Fractions – Snowmobile Fuel

All the residents of North Pole use snow mobiles to get around. Santa keeps his sleigh in a cave far away from the other residents of North Pole. The person who stole the sleigh would have used up a lot of petrol/gas in their snowmobile so any suspect with a lot of gas in their tank can be taken off the suspect list.

CROSS THE SUSPECT OFF THE LIST WHO HAS THE MOST AMOUNT OF FUEL LEFT IN THEIR SNOWMOBILE.

Rudolph	Gingerbread Man	Santa's Elf	Mrs Claws
$\dfrac{2}{4}$ Fuel left in tank	$\dfrac{4}{6}$ Fuel left in tank	$\dfrac{2}{3}$ Fuel left in tank	$\dfrac{6}{10}$ Fuel left in tank

Frosty	Christmas Ghost	Penguin Paul	Christmas Bear
$\dfrac{7}{9}$ Fuel left in tank	$\dfrac{4}{8}$ Fuel left in tank	$\dfrac{7}{12}$ Fuel left in tank	$\dfrac{3}{5}$ Fuel left in tank

Shade in the amount of fuel each suspect has left in their snowmobile.
Cross off the suspect with the most amount of fuel left in their tank.

BRIBE THE GUARD

The guard who looked after the sleigh vanished after the sleigh was stolen. It was found that the sleigh thief paid the guard a bribe to help them with the robbery. The sleigh thief must therefore have a lot of spare money. The **two** suspects with the least amount of money wouldn't have had enough to bribe the guard so can be crossed off the suspect list.

CROSS OFF THE **TWO** SUSPECTS WITH THE LEAST AMOUNT OF TOTAL MONEY

	Money in Bank	Cash in Wallet	Cash in Piggy Bank	Total money
Rudolph	$110.50	$30	$47.20	
Gingerbread Man	$120.10	$25.75	$16.50	
Santa's Elf	$80.75	$75.20	$29.60	
Mrs Claws	$95.80	$103	$42.40	
Frosty	$143.20	$64.75	$9.50	
Christmas Ghost	$104.85	$28.20	$31.05	
Penguin Paul	$173.65	$8.40	$13.80	
Christmas Bear	$65.40	$35.05	$12.40	

FIND THE TOTAL AMOUNT OF MONEY EACH SUSPECT HAS.
CROSS THE TWO SUSPECTS WITH THE LEAST AMOUNT OF MONEY OFF THE SUSPECT LIST.

Enrichment

Refocus

Directions: Simplify the expressions.

1 $10 + (14 \div 2)$

✎ **Explain how you simplified the expression.**

_____

_____

_____

2 $2 \times [(5 + 5) + 11]$

✎ **Explain how you simplified the expression.**

_____

_____

_____

Independent Practice

Directions: Insert parentheses to find the solution given. Rewrite the problem on the line provided.

1 $6 \times 5 + 5$ solution is 60

_____

2 $4 + 18 \div 3$ solution is 10

_____

Directions: Simplify each expression. Then, match the answer to a letter in the table below. Write the letters on the lines below to solve the riddle!

3 $9 + (16 - 4) =$	**4** $(33 + 2) - 10 =$
5 $3 \times (5 + 5) =$	**6** $(48 \div 2) - 8 =$
7 $[(18 - 2) \div 2] \times 7 =$	**8** $36 - [(19 + (2 \div 2)] =$
9 $6 + \{5 \times [(10 - 6) \div 2] + 3\} =$	**10** $\{15 \div [(6 + 9) \div 5] + 3\} =$

$30 = \mathbf{C}$ $25 = \mathbf{I}$ $8 = \mathbf{T}$ $16 = \mathbf{E}$ $56 = \mathbf{B}$ $21 = \mathbf{N}$ $19 = \mathbf{L}$

Riddle

What did the zero say to the eight?

_____ _____ _____ _____   _____ _____ _____ _____!

5th Grade Math

Week of January 4 – January 8, 2021

Name _____

* Please do not complete until advised by teacher*

Enrich ment

Expressive Expressions

Directions: Write an expression to match the words. Then, explain your answer.

1 Add seven and two. Multiply the sum by four.

Expression: _____

🖊 **Explain:** _____

_____

2 Four times the difference of five and two

Expression: _____

🖊 **Explain:** _____

_____

Directions: Interpret the meaning of the expression. Then, explain your reasoning.

3 $(12 - 6) \div 3$

Meaning: _____

🖊 **Explain:** _____

_____

4 $3 \times (2{,}489 + 1{,}321)$

Meaning: _____

🖊 **Explain:** _____

_____

Name: _____ Date: _____

Examining Expressions

Directions: Write an expression to match the words. Then, explain your answer.

① Subtract five from nine. Add two to the difference.

Expression: _____

✎ **Explain:** _____

_____

② Multiply the sum of three and six by five.

Expression: _____

✎ **Explain:** _____

_____

Directions: Interpret the meaning of the expression. Then, explain your reasoning.

③ $3 \times (1 + 7)$

Meaning: _____

✎ **Explain:** _____

_____

④ $(5,348 - 3,268) \times 2$

Meaning: _____

✎ **Explain:** _____

_____

Quick ✔ Check

Directions: Match the expression to its correct word form.

Expression	Word Form
❶ $4 \times 3 \div 2$	Ⓐ Add two and three. Multiply the sum by four.
❷ $(2 + 3) \times 4$	Ⓑ Add two to the product of four and three.
❸ $2 \times (3 + 4)$	Ⓒ Double the sum of three and four.
❹ $4 \times 3 + 2$	Ⓓ Multiply three and four. Divide by two.

❶ _____

❷ _____

❸ _____

❹ _____

Directions: Interpret the meaning of the expression below. Explain your reasoning.

❺ $4 \times (3,489 + 2,149)$

_____

_____

_____

_____