



3rd  
Basic

4th  
Advanced

# Helping With Math

USA  
GRADES

## Properties of Division

Suitable for students  
aged 7-9



This pack is suitable for learners aged 7-9 years old or 3rd to 4th graders (USA). The content covers fact files and relevant basic and advanced activities involving properties of division.



### Division by 1 Property

→ If a number is divided by 1, the quotient is the number itself

### Division by itself Property

→ If a number is divided by itself, the quotient is 1



### Division of any number by 0 Property

→ If the divisor is 0, it is meaningless

### Division of 0 by any number Property

→ If the dividend is 0, then 0 is the quotient



## CONCEPTS



### DIVISION BY 1 PROPERTY



- Any number divided by 1 will result to the number itself as its quotient

Examples:

- $29 \div 1 = 29$
- $825 \div 1 = 825$
- $5,240 \div 1 = 5,240$

Try these:

$$349 \div 1 =$$

$$9,163 \div 1 =$$



### DIVISION BY ITSELF PROPERTY



- Any number divided by itself will result to 1 as its quotient

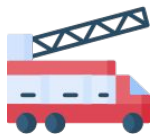
Examples:

- $47 \div 47 = 1$
- $594 \div 594 = 1$
- $5,485 \div 5,485 = 1$

Try these:

$$485 \div 485 =$$

$$6,193 \div 6,193 =$$



### DIVISION OF ANY NUMBER BY 0 PROPERTY



- A division of a number by 0 is meaningless: the divisor can never be zero

Examples:

- $92 \div 0 = \text{meaningless}$
- $193 \div 0 = \text{meaningless}$
- $3,459 \div 0 = \text{meaningless}$

Try these:

$$395 \div 0 =$$

$$8,928 \div 0 =$$



## CONCEPTS



### DIVISION OF 0 BY ANY NUMBER PROPERTY

- Any number divided by 0 will result to the 0 as its quotient

Examples:

➤  $0 \div 55 = 0$

➤  $0 \div 754 = 0$

➤  $0 \div 4,294 = 0$



Try these:

$$0 \div 840 =$$

$$0 \div 1,942 =$$



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# EVACUATION PLAN

G3

Basic

Follow the evacuation plan by identifying and writing what properties are asked in the following statements.

1. My divisor is 0 and I will have a “meaningless” quotient. What property am I?

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2. I am the kind of property wherein any number divided by 1 will result to the number itself. What am I?

---

3. I am a property that involves with any number divided by itself will result to the quotient of 1. What am I?

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4. My dividend is 0 and I will have a “0” as quotient. What property am I?

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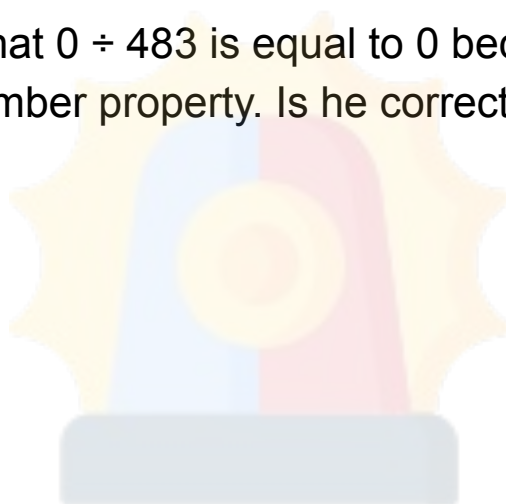
# FIRE ALERT

G3

Basic

**Identify whether the information given by concerned citizens are correct or not. Analyze the statements then justify your answer.**

1. Jack reported that  $74 \div 0$  is equal to 0 because of the division of any number by 0 property. Is he correct?
2. Victoria claimed that  $834 \div 1$  will result to 834 because of the division by itself property. Is she correct?
3. Travis called that  $0 \div 483$  is equal to 0 because of the division of 0 by any number property. Is he correct?

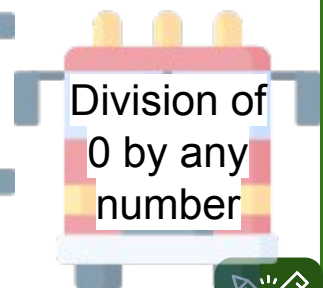
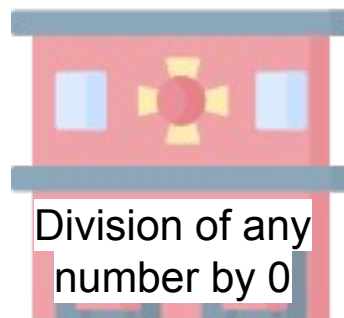
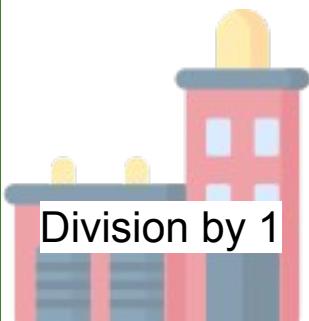


# MY OWN STATION

G3

Basic

Build your own fire station by cutting and paste the objects with properties written on it and define it using your own words.

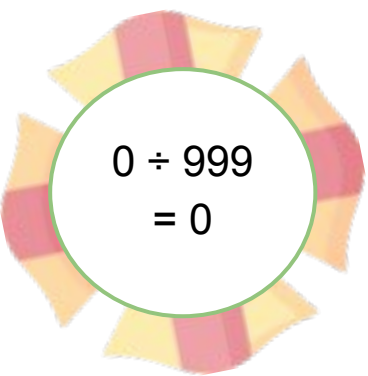



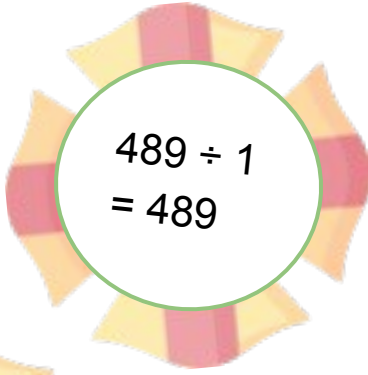
# FIRE CODE

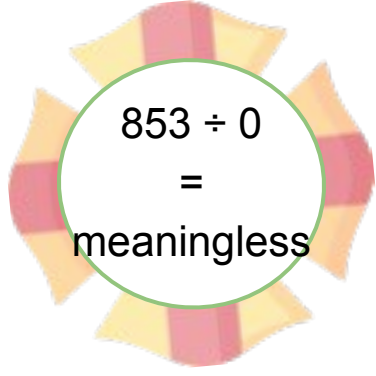
G3

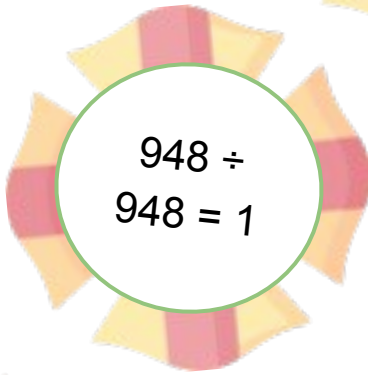
Basic

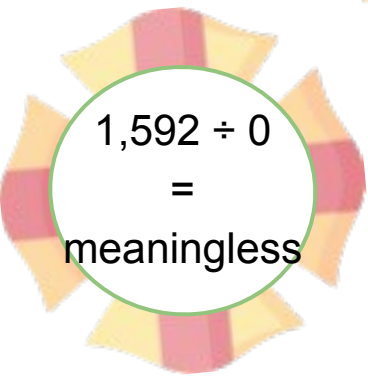
Distinguish the different colors of the fire code by coloring the following given based on the color of their properties.

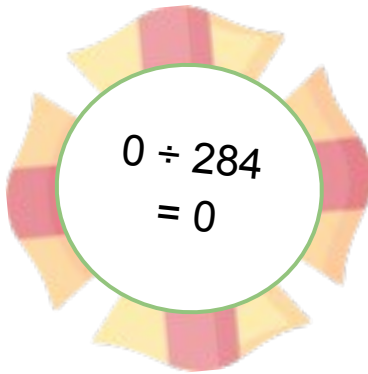

$$0 \div 999 = 0$$

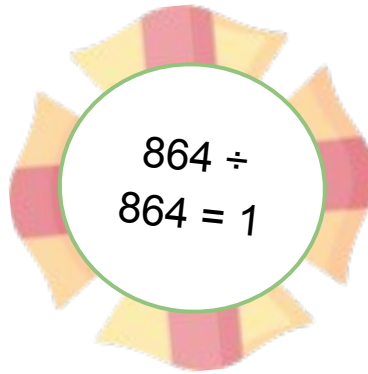

$$489 \div 1 = 489$$

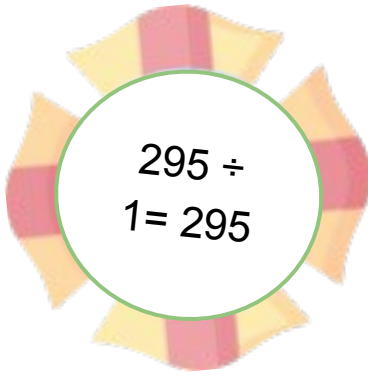

$$853 \div 0 = \text{meaningless}$$


$$948 \div 948 = 1$$


$$1,592 \div 0 = \text{meaningless}$$


$$0 \div 284 = 0$$


$$864 \div 864 = 1$$


$$295 \div 1 = 295$$

By 1

By itself

Any number by  
0

0 by any  
number





# FIRE COORDINATES

G3

Basic

Locate the place of the fire by filling in the blanks with the correct answer.

5. When a digit is divided by 0, the answer will be \_\_\_\_\_.



4. When a given has 0 as its divisor, the quotient is \_\_\_\_\_.

3. If 923 is divided by 1, the answer is \_\_\_\_\_.

2. Dividing 0 by 348 will result to \_\_\_\_\_.

1. When we divide 58 by itself, the answer will be \_\_\_\_\_.



# FIREFIGHTER'S TASK

G4  
Advanced

You are assigned to stop the fire in less than 2 minutes! Likewise, answer the following flashcards within the mentioned time frame.

4, 9 2 8



4, 9 2 8

8, 3 8 2

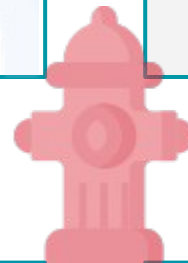
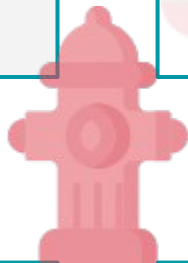


0

0



7, 2 8 1



9, 4 3 8



1

5, 5 5 6



5, 5 5 6

6, 7 3 4



0



# WHAT STATION?

In which station will Maya and Andy be working? Guess the word by performing the division operation.

0	2, 3 4 5	9, 4 5 8	4, 9 8 4
÷	÷	÷	÷
4, 8 9 9	0	9, 4 5 8	1
E	I	N	T

--	--	--	--	--	--	--	--

1      meaning less      1      0      4,984      0      0      1



## CAUTION: FIRE SCENE

G4  
Advanced

Help the firefighters put barriers by filling and completing the division sentence below then write its corresponding properties.

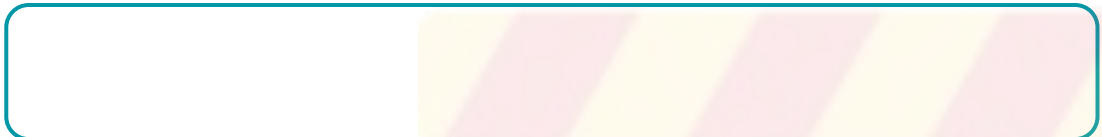
1.  $9,538 \div \underline{\hspace{2cm}} = 9,538$



2.  $0 \div 5,935 = \underline{\hspace{2cm}}$



3.  $6,459 \div \underline{\hspace{2cm}} = \text{meaningless}$



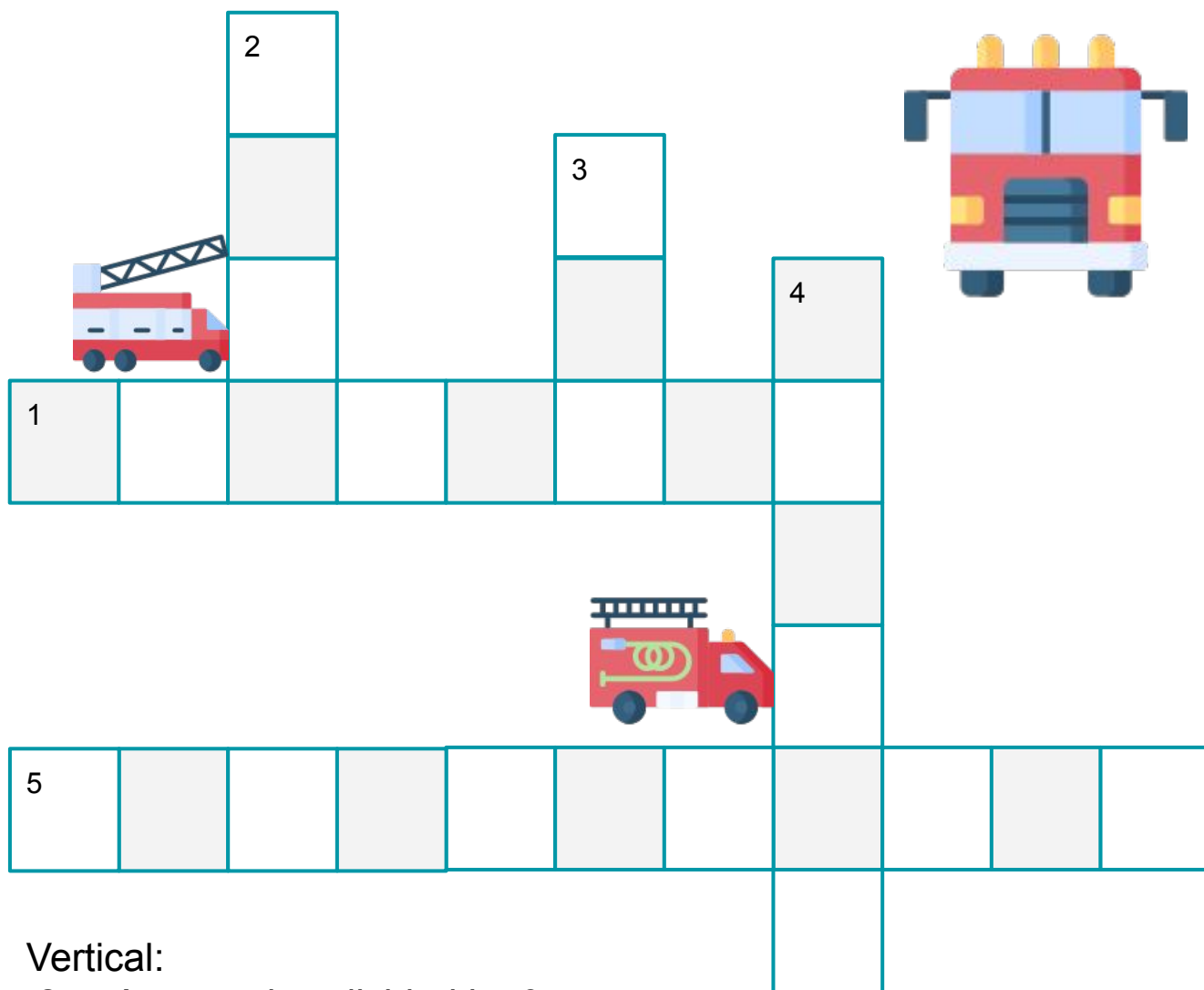
4.  $\underline{\hspace{2cm}} \div 8,456 = 1$



# FIRE ROUTE

**G4**  
Advanced

**Help the fire trucks reach the destination by answering the crossword puzzle below that involves concepts of properties of division.**



Vertical:

2. Any number divided by 0 will result to \_\_\_\_\_.
3. Any number divided by itself will result to \_\_\_\_\_.
4. Any number divided by 1 will result to the number \_\_\_\_\_.

Horizontal:

1. The answer in division.
5. Division of any number by 0 is \_\_\_\_\_.



# FIRE REPORT

G4  
Advanced

**As the captain of the fire station, you are tasked to accomplish the fire report. Complete it by answering the questions below.**

1. Give two to three life examples or applications related to the theme where this lesson can be applied.
2. What is the importance of learning properties of division? How is it beneficial for you?
3. Did you enjoy this lesson? Share your enjoyable moment/s while learning this lesson by teaching your friends.



# ANSWER GUIDE

## Activity 1

1. Division of any number by 0 property
2. Division by 1 property
3. Division by itself property
4. Division of 0 by any number property
5. Division of any number by 0 property

## Activity 2

1. Incorrect
2. Incorrect
3. Correct

Answers may vary on the explanation.

## Activity 3

1. Division by 1 property
2. Division by itself property
3. Division of any number by 0 property
4. Division of 0 by any number property

Answers may vary on the definition.

## Activity 4

1. Division by 1 property = red
2. Division by itself property = yellow
3. Division of any number by 0 property = green
4. Division of 0 by any number property = blue



# ANSWER GUIDE

## Activity 5

- 1
- 0
- 923
- Meaningless
- Meaningless

## Activity 6

- 1
- Meaningless
- 0
- 9,438
- 1
- Meaningless

## Activity 7

E = 0  
I = Meaningless  
N = 1                      Word:  
T = 4,984                      Nineteen

## Activity 9

- Quotient
- Zero
- One
- Itself
- Meaningless

## Activity 8

- 1 = Division by 1
- 0 = Division of 0 by any number
- 0 = Division of any number by 0
- 8,456 = Division by itself
- Meaningless = Division of any number by 0

## Activity 10

Answers may vary.





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