



6th
Basic

7th
Advanced

Helping With Math

USA
GRADES

Division of Integers with Like Signs

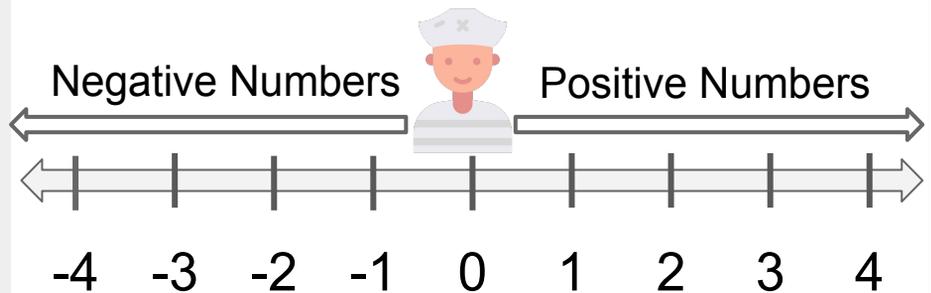
Suitable for students aged 10-12



This pack is suitable for learners aged 10-12 years old or 6th to 7th graders (USA). The content covers fact files and relevant basic and advanced activities involving division of integers with unlike signs.



Dividing integers is the fourth fundamental operation in mathematics. It involves the sign '÷'.



$$\begin{array}{c} \text{✓} \\ \text{ETD} \\ \hline 1,863 \end{array} \div \begin{array}{c} \text{✓} \\ \text{ETD} \\ \hline 23 \end{array} = 81$$

$$\begin{array}{c} \text{✗} \\ \text{ETA} \\ \hline -726 \end{array} \div \begin{array}{c} \text{✗} \\ \text{ETA} \\ \hline -11 \end{array} = 66$$

When getting the result of the integers with like signs, simply perform the division operation.



RULES IN DIVIDING INTEGERS

Division with like signs may be in the following given form: $(+) \div (+)$ or $(-) \div (-)$.



DIVIDING INTEGERS WITH LIKE SIGNS

- To divide integers with like signs, simply get the quotient of the given division sentence and put positive sign on it.
- The division of both positive integer and both negative integer is always positive.
- In other words, when both numbers have same signs, the result is always positive.

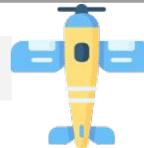


Visual Representation

INTEGER SIGN	OPERATION	ANSWER SIGN
$(+) \div (+)$	Divide	(+)
$(-) \div (-)$	Divide	(+)



EXAMPLES



1.) $540 \div 12 = 45$

2.) $-638 \div -11 = 58$

3.) $-400 \div -16 = 25$

Try these:

$$\begin{array}{r} 1,715 \\ \div \\ \hline 49 \end{array}$$

$$\begin{array}{r} -2,275 \\ \div \\ \hline -35 \end{array}$$

$$\begin{array}{r} 3,332 \\ \div \\ \hline 98 \end{array}$$



ILLUSTRATIVE EXAMPLES

Sample Word Problem: Railey's travel time history, in minutes, of his last seven flights are the following: 480, 512, 355, 1090, 400, 255, and 600. Compute for his average travel time.

Solution:

Computing for the average involves addition and division of numbers. Since all of the given values are integers, this word problem is a perfect example of our lesson.

In getting the average, add all the values then divided the sum by the number of values.

$$480 + 512 + 355 + 1090 + 400 + 255 + 600 = \mathbf{3692}$$

$$3692 \div 7 = \mathbf{527} \text{ (rounded off to the nearest whole number)}$$

Thus, Railey's average travel time history of his last seven flights is 527 minutes.

Try this.

If Railey's travel time history will involve his last ten flights, compute for the average given that 480, 512, 355, 1090, 400, 255, 600, 355, 400, 255, and 480.



TABLE OF ACTIVITIES

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SIGNAGE ON BOARD

G6
Basic

Check your flight and directions by computing for the quotient of each positive integers.

$$1. 590 \div 10 =$$

$$2. 220 \div 20 =$$

$$3. 830 \div 83 =$$



$$4. 224 \div 8 =$$

$$5. 264 \div 4 =$$

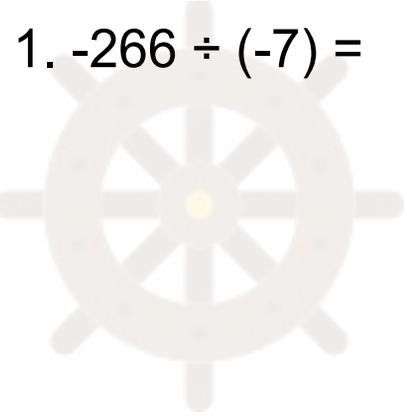
$$6. 336 \div 7 =$$



THE CAPTAIN'S SPACE

G6
Basic

Oh captain, the quotients are missing! Compute for them by performing the division operation.



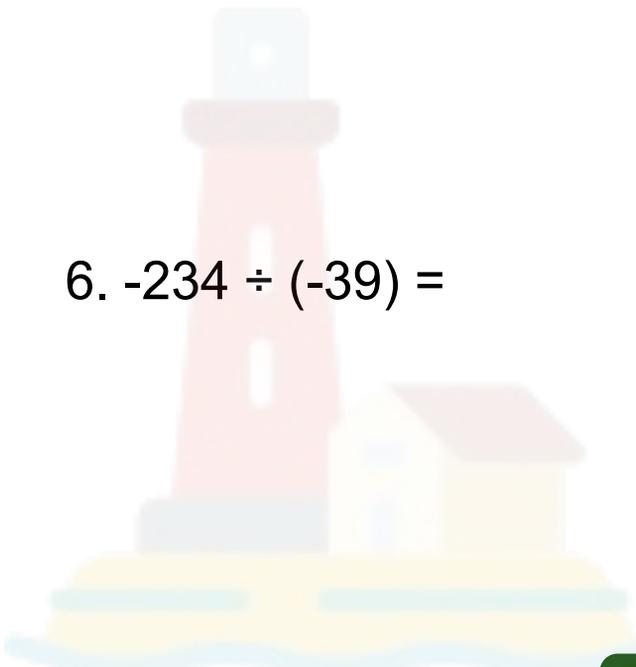
1. $-266 \div (-7) =$

2. $-192 \div (-12) =$

3. $-880 \div (-55) =$

4. $-830 \div (-83) =$

5. $-132 \div (-2) =$



6. $-234 \div (-39) =$



FLIGHT TIME

G6
Basic

Complete these flight time schedules by finding the quotient of the integers in the 1st row with the integers in the 1st column and fill them in the squares provided.

\div	-135	-405
-45		

\div	684	760
76		

\div	900	225
75		

\div	-680	-765
-85		

\div	-460	-322
-46		

\div	140	350
70		



MARINE VEHICLES

G6
Basic

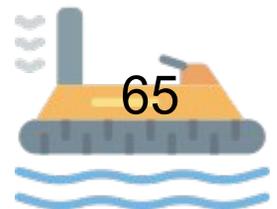
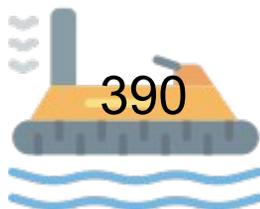
Look and find the similar marine vehicles below then answer the questions. Show your solution.

1. Find the quotient of the yachts. 

2. Find the quotient of the ships. 

3. Find the quotient of the hovercrafts. 

4. Find the quotient of the boats. 



PASSPORT RENEWAL

G6
Basic

Renew your passport by answering the following questions below.

1. What is the quotient of the numbers that are 510 and 85 units away from the right of zero?
2. Is the quotient of -108 and -18 greater than the quotient of -451 and -41 ? Prove your answer.
3. How many units away from zero is the product of -819 and -91 located?



SPEED UP

G7
Advanced

Fast in your seat belts for a speed up! Write T if the statement is true and F if it is false. If it is false, underline the incorrect word/s in the statement and write the correct answer on the box below the given.

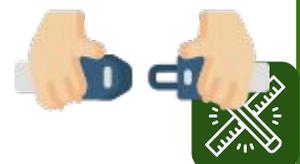
_____ 1. Two thousand six hundred twenty-two divided by thirty-eight is equal to positive ninety-six.



_____ 2. Negative four thousand three hundred fifty divided by seventy-five is equal to negative fifty-eight.

_____ 3. Five thousand five hundred ten divided by ninety-five is equal to fifty-eight.

_____ 4. Three thousand eight hundred seventy divided by forty-three is equal to positive ninety.



WE ARE ON BOARD

G7
Advanced

Good day! We are now on board. Complete the title of this activity by solving the following division sentences.

$$\begin{array}{r} \div \\ -5,220 \\ -58 \end{array}$$

A

$$\begin{array}{r} \div \\ -3,053 \\ -71 \end{array}$$

C

$$\begin{array}{r} \div \\ -8,188 \\ -89 \end{array}$$

I

$$\begin{array}{r} \div \\ 9,500 \\ 95 \end{array}$$

N

$$\begin{array}{r} \div \\ 7,308 \\ 84 \end{array}$$

P

$$\begin{array}{r} \div \\ 4,800 \\ 64 \end{array}$$

T

43

90

87

75

43

92

100



SWIFT TASK

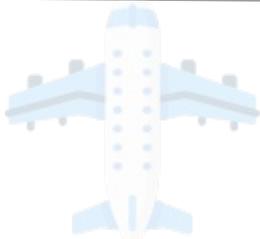
G7
Advanced

Just like the high speed of an airplane in the sky, complete this flash cards in fastest way possible.

$$(350 + 50)$$

$$\div$$

$$(15 + 25)$$



$$(118 + 47)$$

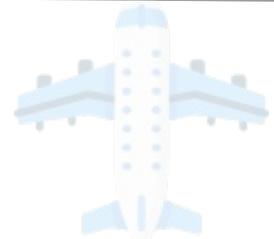
$$\div$$

$$(17 + 8)$$

$$(236 + 18)$$

$$\div$$

$$(150 - 23)$$



$$(58 \times 14)$$

$$\div$$

$$(98 - 84)$$

$$(87 \times 25)$$

$$\div$$

$$(120 + 25)$$



$$(98 \times 16)$$

$$\div$$

$$(7 \times 8)$$



THE WONDERFUL CRUISE

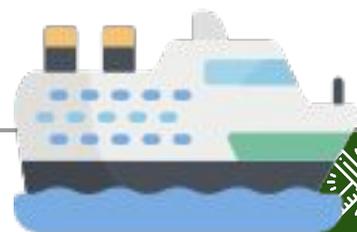
G7
Advanced

Use your understanding of division of like sign integers to answer these cruise-related problems.

1. Amer and his wife book a caribbean cruise for 8 days. Each day, they list down their expenses (E). They want to get their average expenses so that on their next cruise, they will have an estimate budget for their tour.

Day	1	2	3	4	5	6	7	8
E	\$217	\$189	\$451	\$303	\$303	\$198	\$402	\$450

2. If the couple has \$45000 as a budget for their next cruise tours, assume that in each cruise, they spend equal amount of money, how much will it be in 4 cruise tours? Is the answer integer? Why or why not?



FLIGHT TICKET

G7
Advanced

Fill up the information to get your ticket! Make your own mini lesson plan below and distribute it to your friends so that they can learn the lesson!

DIVISION OF INTEGERS WITH LIKE SIGNS

Definition/Rules:

Examples:

Word Problem:

Solution:



ANSWER GUIDE

Activity 1

1. 59
2. 11
3. 10
4. 28
5. 66
6. 48

Activity 2

1. 38
2. 16
3. 16
4. 10
5. 66
6. 6

Activity 3

1. 3, 9
2. 9, 10
3. 12, 3
4. 8, 9
5. 10, 7
6. 2, 5

Activity 4

1. 6
2. 4
3. 6
4. 8

Activity 5

1. 6
2. The quotient of -451 and -41 is greater
3. 9

Activity 6

1. F: 96, 69
2. F: negative, positive
3. T
4. T

Activity 7

A= 90
C= 43
I= 92
N= 100

P= 87
T= 75
Word: Captain

Activity 8

1. 10
3. 2
5. 15
2. 11
4. 58
6. 28

Activity 9

1. $2513 \div 8 = \$ 314.125$
2. \$ 11, 250, the answer is not an integer because it has decimal part.

Activity 10

Answers may vary.



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