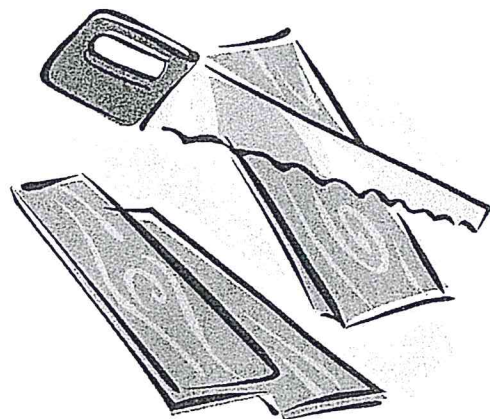


DIVIDING INTEGERS

When you divide integers (numbers), the answer is called the quotient.

There are rules for dividing integers:

- Positive \div positive = positive.
- Negative \div negative = positive.
- Positive \div negative = negative.
- Negative \div positive = negative.
- Zero divided by any number equals zero!
- Any number divided by itself is always one!



The Game: Fill in the blanks. Zero divided by any number equals zero. Any number divided by itself is always one.

$$0 \div ^{-}3 = \underline{\hspace{2cm}}$$

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

$$0 \div ^{-}8 = \underline{\hspace{2cm}}$$

$$^{-}6 \div ^{-}6 = \underline{\hspace{2cm}}$$

$$^{-}5 \div ^{-}5 = \underline{\hspace{2cm}}$$

$$^{-}4 \div ^{-}4 = \underline{\hspace{2cm}}$$

$$^{-}50 \div ^{-}50 = \underline{\hspace{2cm}}$$

$$0 \div ^{-}4 = \underline{\hspace{2cm}}$$

Math Fact: You can't divide any number by zero. The answer is undefined.



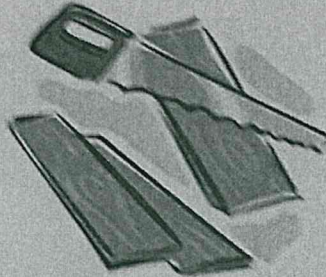
What is a quotient?

DIVIDING INTEGERS

When you divide integers (numbers), the answer is called the quotient.

There are rules for dividing integers:

- Positive \div positive = positive.
- Negative \div negative = positive.
- Positive \div negative = negative.
- Negative \div positive = negative.
- Zero divided by any number equals zero!
- Any number divided by itself is always one!



The Game: Fill in the blanks. Zero divided by any number equals zero. Any number divided by itself is always one.

$$0 \div ^{-}3 = \underline{0}$$

$$0 \div 5 = \underline{0}$$

$$0 \div ^{-}8 = \underline{0}$$

$$^{-}6 \div ^{-}6 = \underline{1}$$

$$^{-}5 \div ^{-}5 = \underline{1}$$

$$^{-}4 \div ^{-}4 = \underline{1}$$

$$^{-}50 \div ^{-}50 = \underline{1}$$

$$0 \div ^{-}4 = \underline{0}$$

Math Fact: You can't divide any number by zero. The answer is undefined.



What is a quotient?

THE DIVISION ANSWER _____

RULE #2: DIVIDING NEGATIVE INTEGERS

RULE #1: DIVIDING POSITIVE INTEGERS

Here is the first rule in dividing integers:

The quotient of two positive integers (numbers) is positive.

Positive \div positive = positive

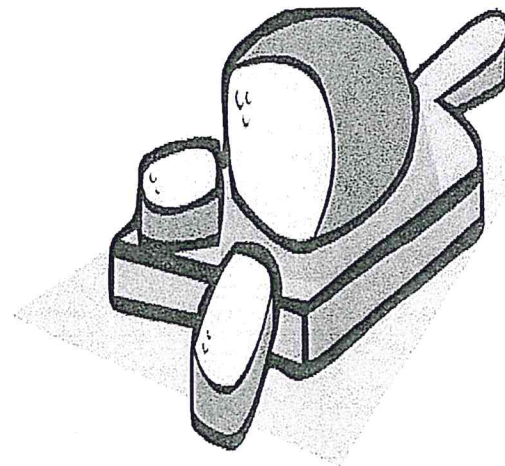
Examples:

$$20 \div 5 = 4$$

$$50 \div 2 = 25$$

$$30 \div 10 = 3$$

$$40 \div 4 = 10$$



The Game: Fill in the blanks.

$$5 \div 5 = \underline{\quad}$$

$$8 \div 4 = \underline{\quad}$$

$$15 \div 5 = \underline{\quad}$$

$$25 \div 5 = \underline{\quad}$$

$$6 \div 2 = \underline{\quad}$$

$$20 \div 10 = \underline{\quad}$$

$$90 \div 10 = \underline{\quad}$$

$$21 \div 3 = \underline{\quad}$$

$$30 \div 5 = \underline{\quad}$$

$$44 \div 11 = \underline{\quad}$$

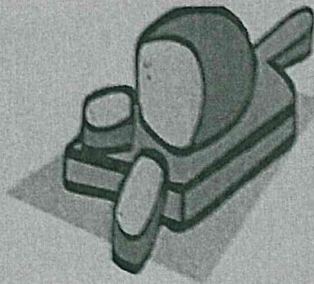


Is the quotient of two positive integers positive or negative?

ch 28

RULE #1: DIVIDING POSITIVE INTEGERS

Here is the first rule in dividing integers:
The quotient of two positive integers (numbers) is positive.



Positive ÷ positive = positive

Examples:

- 20 ÷ 5 = 4
- 50 ÷ 2 = 25
- 30 ÷ 10 = 3
- 40 ÷ 4 = 10

The Game: Fill in the blanks.

5 ÷ 5 = 1

20 ÷ 10 = 2

8 ÷ 4 = 2

90 ÷ 10 = 9

15 ÷ 5 = 3

21 ÷ 3 = 7

25 ÷ 5 = 5

30 ÷ 5 = 6

6 ÷ 2 = 3

44 ÷ 11 = 4

UNIT 6



Is the quotient of two positive integers positive or negative?

POSITIVE

ch 28

RULE #3: DIVIDING INTEGERS

Here is the third rule in dividing integers:
The quotient of a positive and negative integer is negative.



RULE #2: DIVIDING NEGATIVE INTEGERS

Here is the second rule for dividing integers:

A negative integer divided by a negative integer is positive.

Negative \div negative = positive

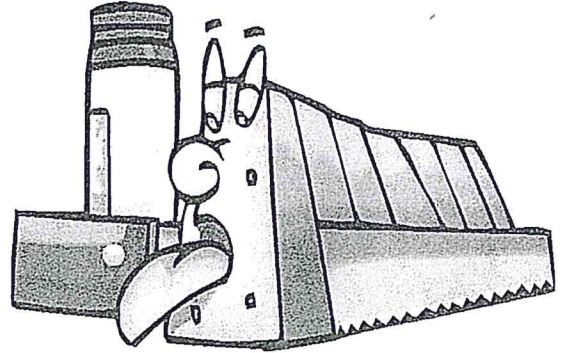
Examples:

$$^{-}50 \div ^{-}2 = 25$$

$$^{-}12 \div ^{-}3 = 4$$

$$^{-}30 \div ^{-}10 = 3$$

$$^{-}40 \div ^{-}4 = 10$$



The Game: Fill in the blanks.

$$^{-}40 \div ^{-}2 = \underline{\hspace{2cm}}$$

$$^{-}4 \div ^{-}2 = \underline{\hspace{2cm}}$$

$$^{-}8 \div ^{-}2 = \underline{\hspace{2cm}}$$

$$^{-}6 \div ^{-}3 = \underline{\hspace{2cm}}$$

$$^{-}18 \div ^{-}9 = \underline{\hspace{2cm}}$$

$$^{-}2 \div ^{-}2 = \underline{\hspace{2cm}}$$

$$^{-}9 \div ^{-}3 = \underline{\hspace{2cm}}$$

$$^{-}40 \div ^{-}20 = \underline{\hspace{2cm}}$$

$$^{-}10 \div ^{-}2 = \underline{\hspace{2cm}}$$

$$^{-}14 \div ^{-}2 = \underline{\hspace{2cm}}$$



What does a negative divided by a negative equal?



What is the answer?
THE EXACT ANSWER

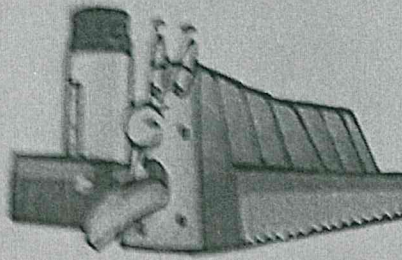
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Ch 28

RULE #2: DIVIDING NEGATIVE INTEGERS

Here is the second rule for dividing integers:
A negative integer divided by a
negative integer is positive.



Negative ÷ negative = positive

Examples:

- $20 \div 2 = 10$
- $12 \div 3 = 4$
- $30 \div 10 = 3$
- $40 \div 8 = 5$

The Game: Fill in the blanks.

$40 \div 2 = 20$

$4 \div 2 = 2$

$8 \div 2 = 4$

$8 \div 3 = 2$

$18 \div 3 = 6$

$2 \div 2 = 1$

$8 \div 3 = 2$

$20 \div 20 = 1$

$10 \div 2 = 5$

$14 \div 2 = 7$



What does a negative divided by a negative equal?

A POSITIVE NUMBER

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RULE #3: DIVIDING INTEGERS

Here is the third rule in dividing integers:

The quotient of a positive and negative integer is negative.

Positive \div negative = negative

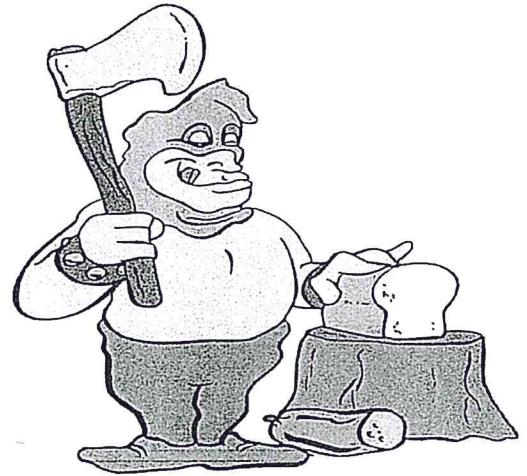
Examples:

$$55 \div ^{-}5 = ^{-}11$$

$$50 \div ^{-}2 = ^{-}25$$

$$30 \div ^{-}10 = ^{-}3$$

$$40 \div ^{-}4 = ^{-}10$$



The Game: Fill in the blanks.

$$20 \div ^{-}5 = \underline{\hspace{2cm}}$$

$$20 \div ^{-}4 = \underline{\hspace{2cm}}$$

$$8 \div ^{-}2 = \underline{\hspace{2cm}}$$

$$90 \div ^{-}9 = \underline{\hspace{2cm}}$$

$$15 \div ^{-}3 = \underline{\hspace{2cm}}$$

$$^{-}60 \div 3 = \underline{\hspace{2cm}}$$

$$20 \div ^{-}10 = \underline{\hspace{2cm}}$$

$$30 \div ^{-}3 = \underline{\hspace{2cm}}$$

$$6 \div ^{-}3 = \underline{\hspace{2cm}}$$

$$44 \div ^{-}4 = \underline{\hspace{2cm}}$$



What is the quotient of a positive and a negative integer?



Is the quotient of two positive integers positive or negative?

POSITIVE

RULE #3: DIVIDING INTEGERS

Here is the third rule in dividing integers:

The quotient of a positive and negative integer is negative.

Positive ÷ negative = negative

Examples:

$$55 \div ^{-}5 = ^{-}11$$

$$50 \div ^{-}2 = ^{-}25$$

$$30 \div ^{-}10 = ^{-}3$$

$$40 \div ^{-}4 = ^{-}10$$



The Game: Fill in the blanks.

$$20 \div ^{-}5 = \underline{-4}$$

$$20 \div ^{-}4 = \underline{-5}$$

$$8 \div ^{-}2 = \underline{-4}$$

$$90 \div ^{-}9 = \underline{-10}$$

$$15 \div ^{-}3 = \underline{-5}$$

$$60 \div ^{-}3 = \underline{-20}$$

$$20 \div ^{-}10 = \underline{-2}$$

$$30 \div ^{-}3 = \underline{-10}$$

$$6 \div ^{-}3 = \underline{-2}$$

$$44 \div ^{-}4 = \underline{-11}$$



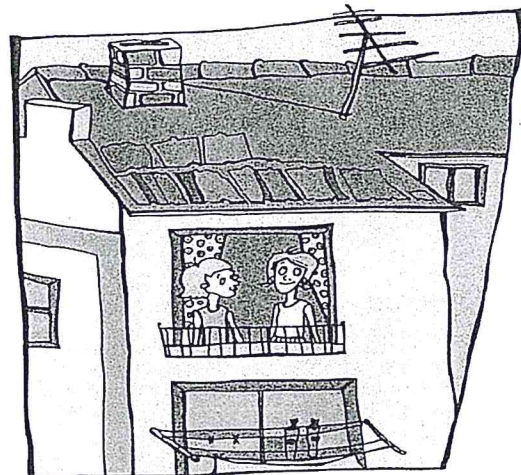
What is the quotient of a positive and a negative integer?

NEGATIVE

DIVIDE THOSE INTEGERS!

Look at the rules:

- Positive \div positive = positive
Example: $20 \div 5 = 4$
- Negative \div negative = positive
Example: $-12 \div -3 = 4$
- Positive \div negative = negative
Example: $55 \div -5 = -11$
- Negative \div positive = negative
Example: $-40 \div 10 = -4$



The Game: Fill in the blanks.

Jada, Amy, and Kelly share an apartment. The balance of their bills for the month of January is \$600. How much money do they each owe?

The problem $\rightarrow -600 \div 3 = \underline{\hspace{2cm}}$

The answer $\rightarrow \underline{\hspace{2cm}}$

Tyler and his brother Kyle bought a car. Their car insurance is \$220. How much money do they each owe?

The problem $\rightarrow -220 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

The answer $\rightarrow \underline{\hspace{2cm}}$

Vanessa returned four rental movies late, and now she needs to pay the fines. The balance that she owes is \$12. How much money did she owe on each movie?

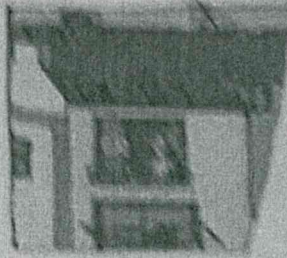
The problem $\rightarrow -12 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

The answer $\rightarrow \underline{\hspace{2cm}}$

INVERSE THOSE INTEGERS!

Look at the rules

- 1. Positive + positive = positive
Example: $30 + 2 = 32$
- 1. Negative + negative = positive
Example: $-12 + -3 = 9$
- 1. Positive + negative = negative
Example: $32 + -5 = 11$
- 1. Negative + positive = negative
Example: $-30 + 10 = 2$



The Game: Fill in the blanks.

Jana, Amy, and Kelly share an apartment. The balance of their bill for the month of January is \$200. How much money do they each owe?

The problem $\Rightarrow 200 \div 3 = 200$

The answer $\Rightarrow 200$

Tyler and his brother Kyle bought a car. Their car insurance is \$220. How much money do they each owe?

The problem $\Rightarrow 220 \div 2 = 110$

The answer $\Rightarrow 110$

Vanessa returned four rental movies late, and now she owes to pay the fines. The balance that she owes is \$12. How much money do she owe on each movie?

The problem $\Rightarrow 12 \div 4 = 3$

The answer $\Rightarrow 3$

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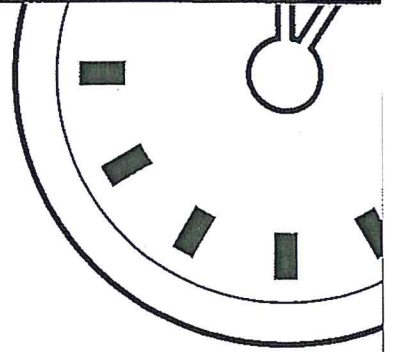
ADDING POSITIVE INTEGERS

Adding a positive integer is the same as adding a regular number.

$$5 + 5 + 0 = 5 + 5 + 6$$

$$10 = 16$$





MINUTE 16

NAME _____

1. Alice has 7 sheets of 20 stamps each. How many stamps does she have in all? _____ stamps

2. $7 \overline{)42}$

3. $\begin{array}{r} 75 \\ + 8 \\ \hline \end{array}$

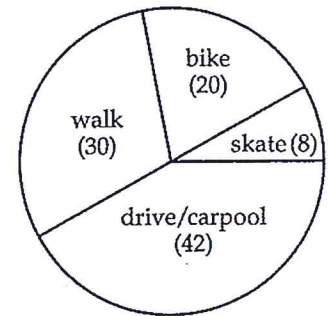
4. $12 \div 3 = 4$ Which number is the quotient? _____

5. A hexagon has _____ sides and _____ angles.

6. $\begin{array}{r} 85 \\ - 9 \\ \hline \end{array}$

7. $\begin{array}{r} 645 \\ \times 4 \\ \hline \end{array}$

How Students Get to School

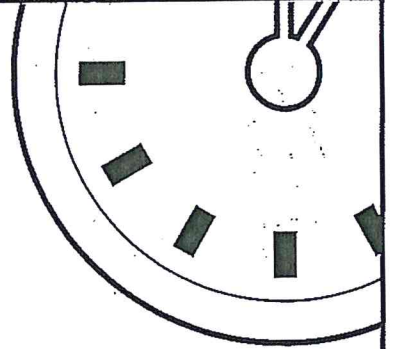


Use the circle graph to complete questions 8–10.

8. The greatest number of students get to school by _____.

9. The least number of students get to school by _____.

10. The sum of students who walk and bike to school is equal to the sum of students who _____ and _____ to school.



MINUTE 17

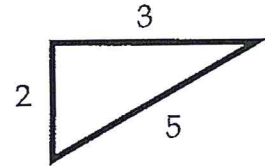
NAME _____

1.
$$\begin{array}{r} 587 \\ \times 6 \\ \hline \end{array}$$

2.
$$5 \overline{)30}^6$$
 Which number is the dividend? _____

3.
$$\begin{array}{r} 93 \\ + 8 \\ \hline \end{array}$$

4. What is the perimeter of the shape? _____



5.
$$7 \overline{)49}$$

6. The expanded form of 4,857 is _____ + _____ + _____ + _____.

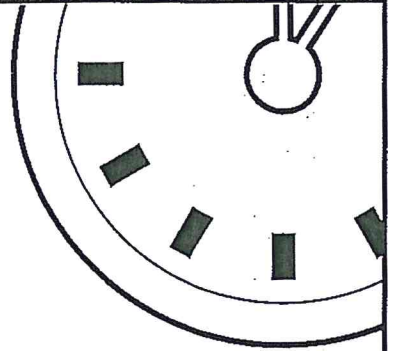
7.
$$\begin{array}{r} 64 \\ - 8 \\ \hline \end{array}$$

8. Chris has 7 wrenches and 4 screwdrivers.
How many tools does he have in all? _____ tools

For questions 9 and 10, circle the digit in the hundreds place.

9. 7,856

10. 945



MINUTE 18

NAME _____

1. $5 \overline{)35}$

2.
$$\begin{array}{r} 87 \\ + 6 \\ \hline \end{array}$$

3. 21 nickels = \$ _____

4. $35 + 25 =$

5. A six-pack of juice sells for \$3.60. How much does each juice cost? _____

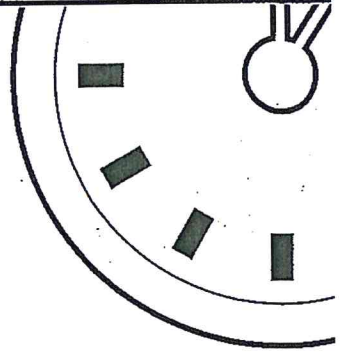
6. $62 \times 100 =$

7.
$$\begin{array}{r} 515 \\ \times 6 \\ \hline \end{array}$$

8. There are _____ minutes in 2 hours.

9.
$$\begin{array}{r} 85 \\ - 6 \\ \hline \end{array}$$

10. $18 \div 6 =$



MINUTE 19

NAME _____

1. There are 8 puppies, and 3 of them have red collars.
What fraction of the puppies have red collars? _____

2. Twelve is an even number. Circle: True or False

3.
$$\begin{array}{r} 86 \\ + 6 \\ \hline \end{array}$$

4.
$$4 \overline{)36}$$

5. $2 \times 6 = 12$ Which number is the product? _____

6. The expanded form of 465 is _____ + _____ + _____.

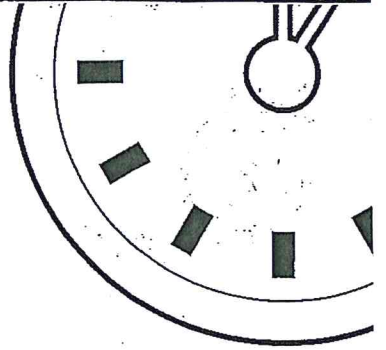
7.
$$\begin{array}{r} 642 \\ \times 7 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 84 \\ - 8 \\ \hline \end{array}$$

For questions 9 and 10, write +, -, or x to make the sentence true.

9. $5 - 2$ _____ $3 = 6$

10. 4 _____ $3 + 8 = 20$



MINUTE 20

NAME _____

1.
$$\begin{array}{r} 91 \\ - 6 \\ \hline \end{array}$$

2.
$$6 \overline{)48}$$

3. 5, 10, _____, 20, 25, 30

4.
$$7 \overline{)35}$$

5.
$$\begin{array}{r} 887 \\ + 7 \\ \hline \end{array}$$

6.
$$3 \overline{)15}^5$$
 Which number is the divisor? _____

7.
$$\begin{array}{r} 354 \\ \times 6 \\ \hline \end{array}$$

For questions 8–10, round the number to the nearest hundred.

8. 621 _____

9. 548 _____

10. 584 _____

4. \$3.00
5. 22
6. 84
7. 6
8. $\frac{2}{3}$
9. $\frac{3}{4}$
10. $\frac{1}{2}$

Minute 16

1. 140 stamps
2. 6
3. 83
4. 4
5. 6sides, 6angles
6. 76
7. 2580
8. drive/carpool
9. Skate
10. drive/carpool and skate

Minute 17

1. 3522
2. 30
3. 101
4. 10
5. 7
6. $4000 + 800 + 50 + 7$
7. 56
8. 11
9. 8
10. 9

Minute 18

1. 7
2. 93
3. \$1.05
4. 60
5. .60 or 60 cents each
6. 6200
7. 3090
8. 120
9. 79
10. 3

Minute 19

1. $\frac{3}{8}$
2. True

3. 92
4. 9
5. 12
6. $400+60+5$
7. 4494
8. 76
9. +
10. X

Minute 20

1. 85
2. 8
3. 15
4. 5
5. 894
6. 3
7. 2124
8. 600
9. 500
10. 600

Minute 21

1. 19
2. 45 degrees
3. 282
4. Kilometers
5. Centimeters
6. Meters
7. 4326
8. 19
9. 1 hour and 25 minutes
10. 1 hour and 30 minutes

Minute 22

1. 617
2. 21
3. 671
4. A
5. 6.25
6. 48, 56, 64
7. 4336
8. Acute
9. Right
10. Obtuse