Master Multiplication Grade



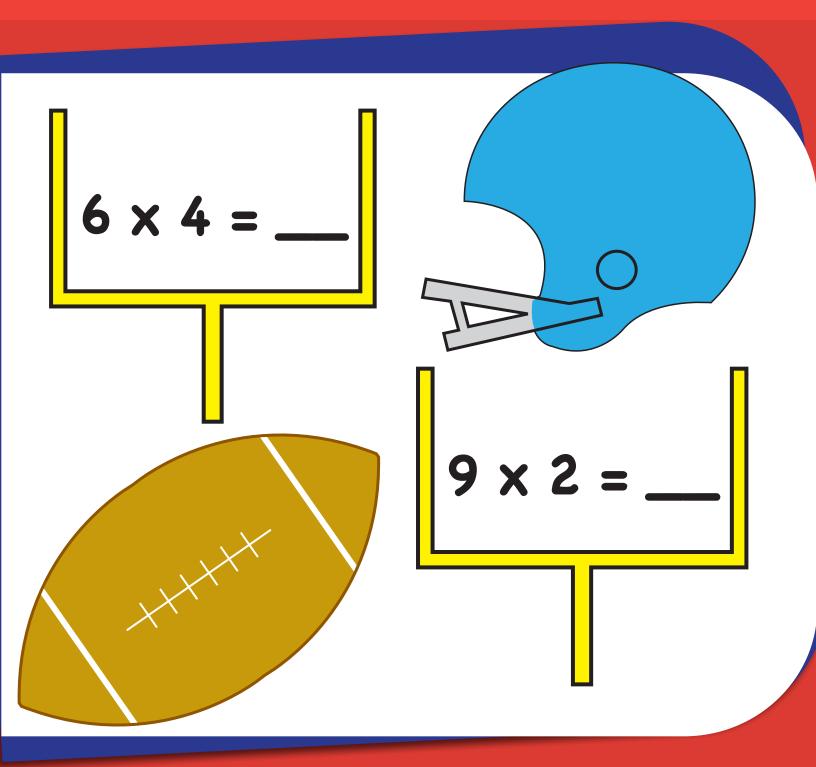


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Certificate of Completion
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Math Addition & Multiplication

Addition Facts

Multiplication problems can also be expressed with addition. Write the addition facts that go with each multiplication sentence. The first one is done for you.

$$3 \times 7 = 3 + 3 + 3 + 3 + 3 + 3 + 3$$

$$5 \times 4 =$$

$$10 \times 5 =$$

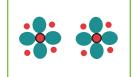
$$7 \times 7 =$$

$$9 \times 4 =$$

Look at the pictures below.











Write the addition fact:

Write the multiplication sentence:

Making Multiplication Sentences

Look at each picture below. Write both the addition and multiplication facts that illustrate each picture. The first one is done for you.











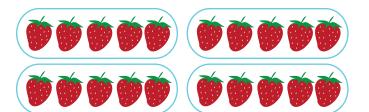




$$2 + 2 + 2$$

$$2 \times 3 = 6$$

















FOOTBALL NUTPLICATION #1





FOOTBALL MULTIPLICATION #2





FOOTBALL MULTIPLICATION #8





FOOTBALL MUTPLEATON #4





FOOTBALL MUTPLEATON#5



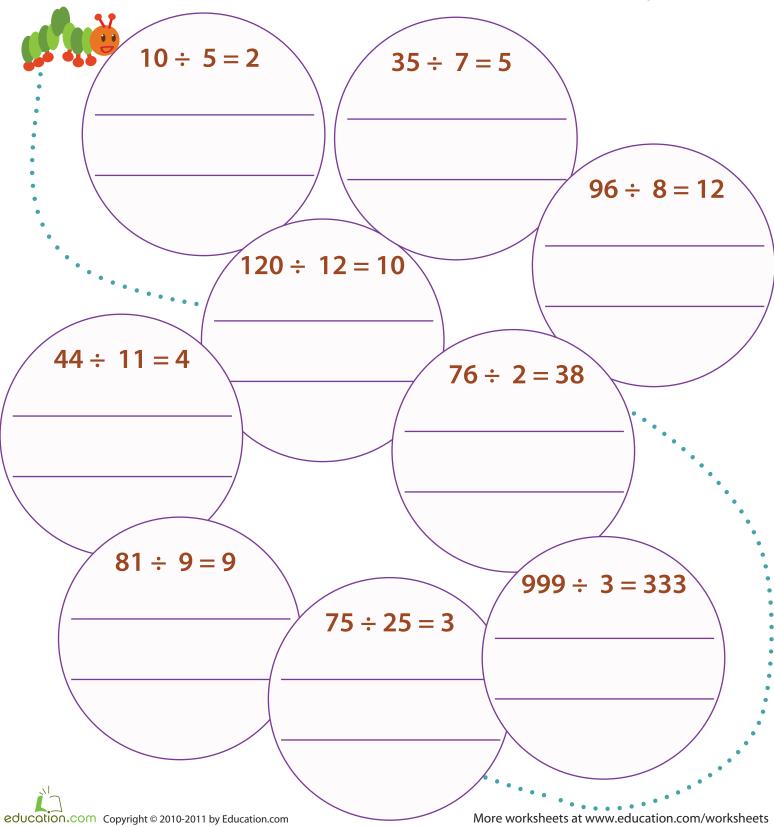


Find The Multiplication Facts

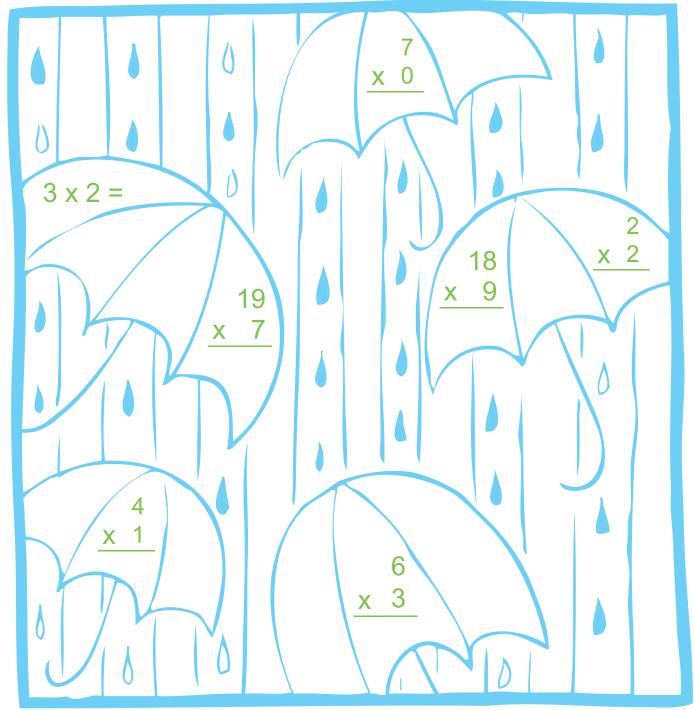
Multiplication is the reverse of division.

Example: If the division sentence is $12 \div 6 = 2$, Then the related multiplication facts are $6 \times 2 = 12$ and $2 \times 6 = 12$.

Look at these division sentences, and write down the two related multiplication facts.



Umbrella Math



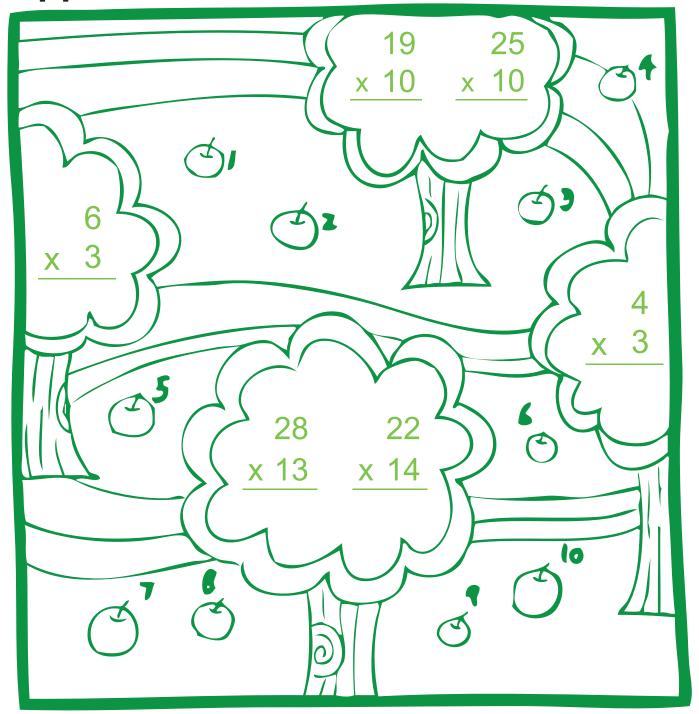
Note: More worksheets at www.education.com/worksheets

Instructions:

Complete each math problem and color the page!



Apple Tree Math



Note: More worksheets at www.education.com/worksheets

Instructions:

Complete each math problem and color the page!



Mammoth Multiplication Problems

There is no monkeying around with these multiplication problems!













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Double Digit Multiplication



GREATER THAN OR LESS THAN?

> " GREATER THAN"

< " LESS THAN"

= "EQUAL"

Directions: Solve the equations then write down the symbol that best compares each answer. Then write the answer in word form.

Example:

Ex. (232x32)



Seven thousand, four hundred and twenty-four is greater than three thousand, three hundred.



2.	346	
	Χ	3



3.	142	
	x 10	





5. 843 x 27



GREATER THAN OR LESS THAN?

> " GREATER THAN"

< " LESS THAN"

= "EQUAL"

Directions: Solve the equations then write down the symbol that best compares each answer. Then write the answer in word form.

Example:

Ex. (232x32) 7424



Seven thousand, four hundred and twenty-four is greater than three thousand, three hundred.

1	539		
	x 223		

2.	439)
	x173	



3.	453	
	x513	



	1223
,	151

4. 745 x 16



Classroom Math: Multiplication Word Problems

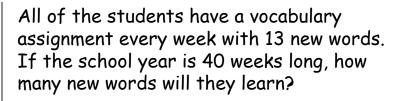


Grade

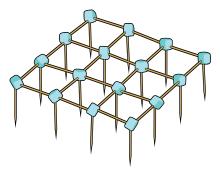
Math isn't just for math class. It is used to solve problems in every subject. Help Mr. Hammond's class figure out their problems using math. Show your work

Henry wants to see how many different colored crayons are in the crayon box. If there here are 4 rows of 19 crayons, how many different colors are there?

Mikey is typing in the computer lab and typing at 23 words per minute. If he types for 11 minutes, how many words does he type?



Jeremy is building a toothpick skyscraper. Look at the picture below of the first floor. How many tooth picks will it take to build 12 stories? How many marshmallows will it take to build 12 stories?



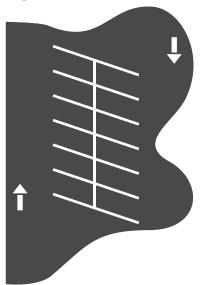
It's the day before Valentine's Day and Shelley needs to get Valentine cards for all of her classmates. The desks are arranged in a rectangle 7 rows wide and 5 rows long. If there are 3 desks that are empty, how many students are in the class?



Use multiplication to solve the following problems. Show your work.

The Nguyen family gets movies from MovieMail home video delivery service. They get 3 movies at the beginning of the week and return them at the end of each week. If they continue this pattern, how many movies will they see in one year? (1 year = 52 weeks)

Look at the diagram of a portion of the local grocery store's parking lot. If there are 15 rows of parking spaces in the lot like this one, how many cars can the parking lot fit in total?





Mr. Hayes is having friends over to watch basketball and needs to buy snacks. He buys 5 boxes of crackers. In each box there are 3 sleeves of 24 crackers. How many crackers did he buy all together? This is a two step problem. Try multiplying the numbers in different orders. Do you get the same answer?

Mr. Chang is comparing television screen sizes. Screen #1 is 18 by 23 inches and screen #2 is 19 by 22 inches. Which television has the larger screen?

Wild Word Problems: Multiplication

Grade

Math in the animal kingdom! Use multiplication to solve the following problems.

Add or subtract when necessary. Show your work.

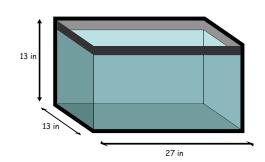
Mario walks his dog every day. The walk path makes a giant loop that is 279 feet long. If Mario and his dog make 3 laps around the loop, how far do they walk? Josefina's cat, Whiskers, climbed into a tree and was too scared to come down. Her dad climbed up a ladder to bring down Whiskers. If Josefina's dad had to climb up 15 ladder steps and the steps are 32 centimeters apart, how high up did Whiskers go?

Racquel buys a small aquarium for her fish collection. The fish tank is 27 inches wide, 13 inches tall, and 13 inches deep. What is the maximum volume of water can the aquarium hold? This is problem requires two multiplication steps, does the order of operations matter?

Remember,

Volume = Length \times Width \times Height.

Julie is teaching her parrot, Romeo, how to say new words. If she teaches him 11 words each month. How many words will Romeo learn in a year?





Family Vacation Multiplication

The Smiths are going on a family vacation. Use multiplication, addition, and subtraction to solve the following problems. Perform other operations as needed to help find the answers. Show your work.

Driving to the airport, the Smiths needed to fill up on gasoline. Gasoline costs 3 dollars for one gallon. If their tank holds 16 gallons, and they already have 3 gallons filled, how much money will it cost to fill the car's tank completely?

The Smiths want to visit a museum and must pay to park. They are going to be gone for 4 hours. The price of parking is as follows:

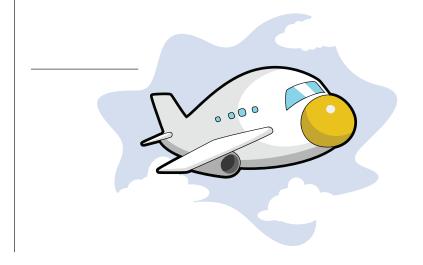
1 Quarter = 15 minutes 1 Dime = 5 minutes 1 Nickel = 2 minutes

The Smiths have 8 quarters, 12 dimes and 14 nickels. Do they have enough to park for 4 hours? (Remember: 60 minutes = 1 hour)

The Smiths board the airplane to head back home. The flight attendant wants to count how many passengers are on board. Every row consists of 2, 3, and 2 seats each (see picture below). If there are 51 horizontal rows, and 13 seats are empty, how many passengers are on board?



In total, the Smiths were flying in an airplane for 14 hours. If the airplane cruises at approximately 512 miles per hour, about how many miles did they travel all together?



Finding Factors

Factors are numbers that you multiply together to get another number. For example, 2 multiplied by 4 equals 8. So 2 and 4 are the factors of 8.

Find the factors of the numbers below. See the example.

$$10 = 2 \times 5$$

Find the missing factors.

$$15 = 3 \times \left(\begin{array}{ccc} \end{array} \right)$$

$$21 = 3 \times \left(\right)$$

$$45 = 9 x$$

$$36 = 2 \times 2 \times 3 \times$$

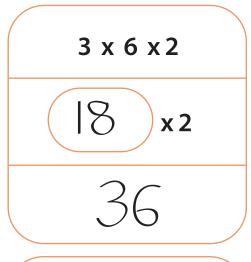
$$75 = 5 \times 3 \times \left(\right)$$

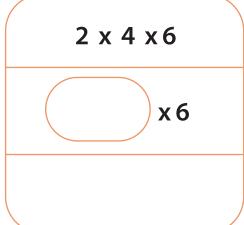
* When the factor is a prime number, it is called a prime factor.

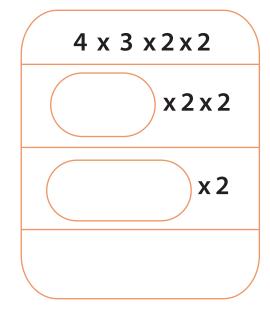


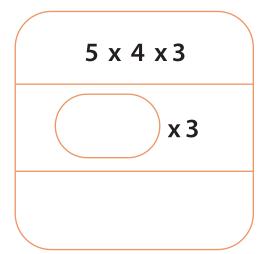
Multiply Three Numbers

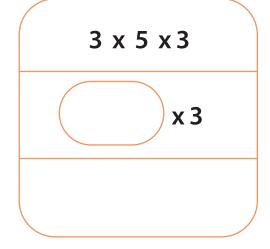
Here's a trick! First, multiply the first number by the second one. Then multiply the product of the first two numbers by the third number. Find the product of these multiplication sentences. The first one is done for you.

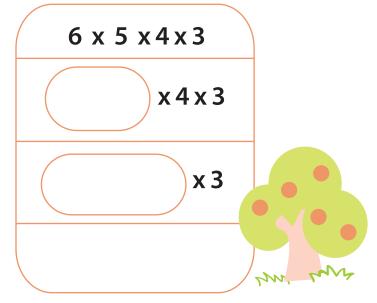












Math-Go-Round

Multiplication | Difficulty: ★★★

Find a friend and practice your multiplication skills. Find two coins or game pieces and place them on the square labeled **START**. Choose one of the problems to solve and move your game piece clockwise around the board to that problem's answer.

Keep track of the number of corners you go around on each move. For each one, give yourself a point. The player with the most points at the end is the winner.

Keep score with the table below.

Play	Ph.)	Vor 2	
Round 1			
Round 2			
Round 3			
Round 4			
Round 5			
Round 6			
Round 7			
Round 8			

Total

†I Point	7,957	3,861	4,462	6,384	+I Point
1,694	143 x 27	152 x 42	141 <u>x 33</u>	137 x 63	1,610
2,916	172 x 51	194 x 23	115 x 14	104 x 85	3,021
4,653	154 <u>x 11</u>	170 x 58	139 x 24	158 x 59	8,840
9,860	129 <u>x 11</u>	109 <u>x 73</u>	108 x 27	159 x 19	8,772
+1 Point	3,336	8,631	9,332	1,419	†I Point



Master Multiplication

Addition Facts Making Multiplication Sentences Football Multiplication #1 Football Multiplication #2 Football Multiplication #3 Football Multiplication #4 Football Multiplication #5 Find the Multiplication Facts Umbrella Math Apple Tree Math Mammoth Multiplication Problems **Double Digit Multiplication** Greater Than or Less Than? #1 Greater Than or Less Than? #2 Classroom Math: Multiplication Word Problems Merchandise Multiplication Wild Word Problems: Multiplication Family Vacation Multiplication **Finding Factors** Multiply Three Numbers

ANSWER SHEET



Addition Facts

Multiplication problems can also be expressed with addition. Write the addition facts that go with each multiplication sentence. The first one is done for you.

$$3 \times 7 = 3 + 3 + 3 + 3 + 3 + 3 + 3$$

$$5 \times 4 = 5 + 5 + 5 + 5$$

$$6 \times 2 = 6 + 6$$

$$10 \times 5 = 10 + 10 + 10 + 10 + 10$$

$$7 \times 7 = 7 + 7 + 7 + 7 + 7 + 7 + 7$$

$$9 \times 4 = 9 + 9 + 9 + 9$$

Look at the pictures below.











Write the addition fact:

$$2+2+2+2+2$$

 2×5

Write the multiplication sentence:

ANSWER SHEET



Making Multiplication Sentences

Look at each picture below. Write both the addition and multiplication facts that illustrate each picture. The first one is done for you.















$$2 + 2 + 2$$

$$2 \times 3 = 6$$

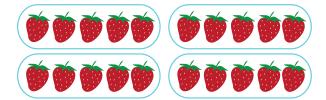


$$1 \times 4 = 4$$



$$3 + 3 + 3$$

$$3 \times 3 = 9$$



$$5 + 5 + 5 + 5$$

$$5 \times 4 = 20$$



$$4 \times 6 = 24$$

ANSWER SHEET

FOOTBALL MULTIPLICATION #1





$$3 \times 8 = \frac{24}{6} \times 4 = \frac{24}{3} \times 7 = \frac{21}{9} \times 2 = \frac{18}{9} \times 2 = \frac{18}{4} \times 3 = \frac{12}{5} \times 5 = \frac{25}{7} \times 2 = \frac{14}{4} \times 4 = \frac{16}{4}$$

ANSWER SHEET

FOOTBALL MULTPLEATION #2





$$\begin{vmatrix}
6 \times 4 &= \frac{24}{4} & 7 \times 2 &= \frac{14}{4} & 3 \times 5 &= \frac{15}{4} & 8 \times 1 &= \frac{8}{4} \\
3 \times 3 &= \frac{9}{4} & 2 \times 8 &= \frac{16}{4} & 7 \times 3 &= \frac{21}{4} & 4 \times 2 &= \frac{8}{4} \\
8 \times 3 &= \frac{24}{4} & 4 \times 5 &= \frac{20}{4} & 6 \times 2 &= \frac{12}{4} & 9 \times 1 &= \frac{9}{4}$$

ANSWER SHEET

FOOTBALL MULTPLEATON#8





$$2 \times 9 = \frac{18}{8} \quad 3 \times 3 = \frac{9}{8} \quad 5 \times 0 = \frac{5}{8} \quad 8 \times 3 = \frac{24}{8}$$

$$5 \times 2 = \frac{10}{8} \quad 7 \times 3 = \frac{21}{8} \quad 2 \times 2 = \frac{4}{8} \quad 7 \times 1 = \frac{7}{8}$$

$$4 \times 3 = \frac{12}{8} \quad 8 \times 2 = \frac{16}{8} \quad 5 \times 5 = \frac{25}{8} \quad 6 \times 3 = \frac{18}{8}$$

ANSWER SHEET

FOOTBALL MULTPLEATON #4





$$5 \times 2 = \frac{10}{100} = \frac{10}{100} = \frac{10}{100} = \frac{100}{100} = \frac{100}{10$$

ANSWER SHEET

FOOTBALL MULTPLEATON#5





$$5 \times 2 = \frac{10}{8} \times 3 = \frac{24}{9} \times 2 = \frac{18}{8} \times 7 = \frac{0}{9}$$

$$4 \times 6 = \frac{24}{3} \times 3 = \frac{9}{9} \times 3 = \frac{18}{8} \times 3 = \frac{18}{9} \times 4 = \frac{8}{8}$$

$$7 \times 3 = \frac{21}{8} \times 3 = \frac{9}{8} \times 3 = \frac{9}{$$

ANSWER SHEET



Find The Multiplication Facts

Multiplication is the reverse of division.

Example: If the division sentence is $12 \div 6 = 2$, Then the related multiplication facts are $6 \times 2 = 12$ and $2 \times 6 = 12$.

Look at these division sentences, and write down the two related multiplication facts.



$$10 \div 5 = 2$$

$$5 \times 2 = 10$$

$$2 \times 5 = 10$$

$$35 \div 7 = 5$$

$$7 \times 5 = 35$$

$$5 \times 7 = 35$$

$$96 \div 8 = 12$$

$$12 \times 8 = 96$$

$$8 \times 12 = 96$$

$$120 \div 12 = 10$$

$$12 \times 10 = 120$$

$$44 \div 11 = 4$$
 $10 \times 12 = 120$

$$11 \times 4 = 44$$

$$4 \times 11 = 44$$

$$76 \div 2 = 38$$

$$38 \times 2 = 76$$

$$2 \times 38 = 76$$

$$81 \div 9 = 9$$

$$9 \times 9 = 81$$

$$9 \times 9 = 81$$

$$75 \div 25 = 3$$

$$25 \times 3 = 75$$

$$3 \times 25 = 75$$

$$999 \div 3 = 333$$

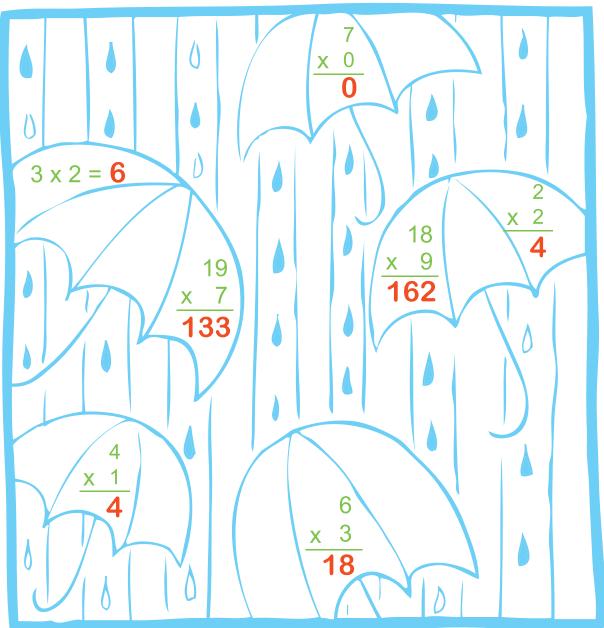
$$3 \times 333 = 999$$

$$333 \times 3 = 999$$



ANSWER SHEET

Umbrella Math



Note: More worksheets at www.education.com/worksheets

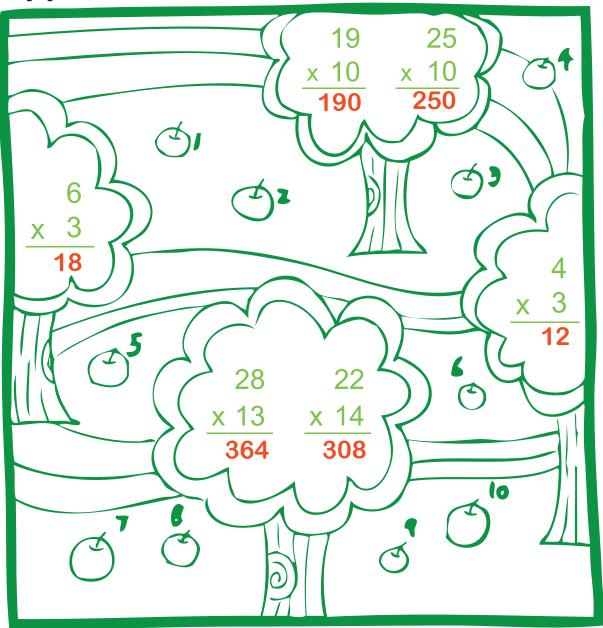
Instructions:

Complete each math problem and color the page!



ANSWER SHEET

Apple Tree Math



Note: More worksheets at www.education.com/worksheets

Instructions:

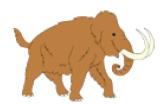
Complete each math problem and color the page!



ANSWER SHEET

Mammoth Multiplication Problems

There is no monkeying around with these multiplication problems!



7	72
Χ	3
2	16

252

134

198

445











A 2	Multi	le Digit plication er sheet)	A 2
34	78	94	14
<u>x 45</u>	x 42	<u>x 12</u>	<u>x 33</u>
170	156	188	42
_136	<u>312</u>	94	<u>42</u>
1530	3276	1128	462
56	84	16	65
<u>x 77</u>	x 24	<u>x 51</u>	x 11_
392	336	16	65
392	168	_80	65
4312	2016	816	715
76	30	22	89
<u>x 20</u>	x 62	x 99	_x 47
00	60	198	623
152	180	<u> 198 </u>	<u>356</u>
1520	1860	2178	4183

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GREATER THAN OR LESS THAN?

> " GREATER THAN"

< "LESS THAN"

= "EQUAL"

Directions: Solve the equations then write down the symbol that best compares each answer. Then write the answer in word form.

Example:

Ex. (232x32) > (22x150) 7424 3300

Seven thousand, four hundred and twenty-four is greater than three thousand, three hundred.

Five thousand, six hundred and seven is greater than three thousand, two hundred and sixteen.

One thousand and thirty-eight is greater than one thousand and thirty-five.

One thousand, four hundred and twenty is equal to one thousand, four hundred and twenty.

Nineteen thousand, seven hundred and twenty is less than twenty-three thousand, five hundred and twenty.

5. 843
$$\times 27$$
 $\times 27$ $\times 94$ $\times 2090$

Twenty-two thousand, seven hundred and sixty-one is greater than twenty two thousand and ninety.

GREATER THAN OR LESS THAN?

> " GREATER THAN"

< "IFSS THAN"

= "EQUAL"

Directions: Solve the equations then write down the symbol that best compares each answer. Then write the answer in word form.

Example:

Ex. (232x32) > (22x150) 7424 3300

Seven thousand, four hundred and twenty-four is greater than three thousand, three hundred.

One hundred twenty thousand, one hundred and ninety-seven is greater than eighty-two thousand, nine hundred and ninety-two.

Seventy-five thousand, nine hundred fortyseven is less than seventy-nine thousand, and fifty-six.

Two hundred, thirty-two thousand, three hundred and eighty-nine is greater than one hundred eighty-eight thousand, three hundred and forty-two.

$$\begin{array}{c|ccccc}
4. & 745 & & 394 \\
 & \times & 16 & & \times & 85 \\
\hline
11.920 & & 33.490
\end{array}$$

Eleven thousand, nine hundred and twenty is less than thirty-three thousand, four hundred and ninety.

Classroom Math: Multiplication Word Problems

Answer Sheet



th Grade

Math isn't just for math class. It is used to solve problems in every subject. Help Mr. Hammond's class figure out their problems using math. Show your work

Henry wants to see how many different colored crayons are in the crayon box. If there here are 4 rows of 19 crayons, how many different colors are there?

76 crayons

Mikey is typing in the computer lab and typing at 23 words per minute. If he types for 11 minutes, how many words does he type?

253 words



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All of the students have a vocabulary assignment every week with 13 new words. If the school year is 40 weeks long, how many new words will they learn?

520 words

Jeremy is building a toothpick skyscraper. Look at the picture below of the first floor. How many tooth picks will it take to build 12 stories? How many marshmallows will it take to build 12 stories?

It's the day before Valentine's Day and Shelley needs to get Valentine cards for all of her classmates. The desks are arranged in a rectangle 7 rows wide and 5 rows long. If there are 3 desks that are empty, how many students are in the class?

$$\frac{7}{\times 5}$$
 35 - 3 = 32

32 students

Merchandise Multiplication Answer Sheet

th

Grade

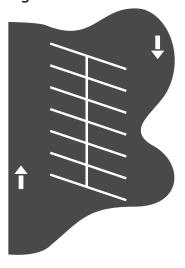
Use multiplication to solve the following problems. Show your work.

The Nguyen family gets movies from MovieMail home video delivery service. They get 3 movies at the beginning of the week and return them at the end of each week. If they continue this pattern, how many movies will they see in one year? (1 year = 52 weeks)

$$3 \times 52 = 156$$

156 movies

Look at the diagram of a portion of the local grocery store's parking lot. If there are 15 rows of parking spaces in the lot like this one, how many cars can the parking lot fit in total?



$$\begin{array}{r}
 12 \\
 x 15 \\
 \hline
 60 \\
 + 120 \\
 \hline
 180
 \end{array}$$

180 cars



Mr. Hayes is having friends over to watch basketball and needs to buy snacks. He buys 5 boxes of crackers. In each box there are 3 sleeves of 24 crackers. How many crackers did he buy all together? This is a two step problem. Try multiplying the numbers in different orders. Do you get the same answer? *You can find this answer by multiplying the numbers in any order.

$$24 \times 3 = 72$$

 $72 \times 5 = 360$

360 crackers

Mr. Chang is comparing television screen sizes. Screen #1 is 18 by 23 inches and screen #2 is 19 by 22 inches. Which television has the larger screen?

Screen #2

Wild Word Problems: Multiplication



Math in the animal kingdom! Use multiplication to solve the following problems.

Add or subtract when necessary. Show your work.

Mario walks his dog every day. The walk path makes a giant loop that is 279 feet long. If Mario and his dog make 3 laps around the loop, how far do they walk?

 $279 \times 3 = 837$ They walk 837 feet long.

Racquel buys a small aquarium for her fish collection. The fish tank is 27 inches wide, 13 inches tall, and 13 inches deep. What is the maximum volume of water can the aquarium hold? This is problem requires two multiplication steps, does the order of operations matter?

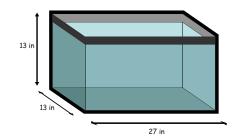
Remember.

Volume = Length x Width x Height.

Volume =
$$27 \times 13 \times 13$$

= $4,563$ cubic inches

Order of operation does not matter.



Josefina's cat, Whiskers, climbed into a tree and was too scared to come down. Her dad climbed up a ladder to bring down Whiskers. If Josefina's dad had to climb up 15 ladder steps and the steps are 32 centimeters apart, how high up did Whiskers 90?

 $15 \times 32 = 480$ Whiskers went up 480 cms.

Julie is teaching her parrot, Romeo, how to say new words. If she teaches him 11 words each month. How many words will Romeo learn in a year?

 $11 \times 12 = 132$ Romeo will learn 132 words in a year.



Family Vacation Multiplication

The Smiths are going on a family vacation. Use multiplication, addition, and subtraction to solve the following problems. Perform other operations as needed to help find the answers. Show your work.

Driving to the airport, the Smiths needed to fill up on gasoline. Gasoline costs 3 dollars for one gallon. If their tank holds 16 gallons, and they already have 3 gallons filled, how much money will it cost to fill the car's tank completely?

(16 gallons - 3 gallons) = 13 gallons 13 x \$3 per gallon = \$39

It cost \$39 to fill the tank completely.

The Smiths want to visit a museum and must pay to park. They are going to be gone for 4 hours. The price of parking is as follows:

1 Quarter = 15 minutes 1 Dime = 5 minutes 1 Nickel = 2 minutes

The Smiths have 8 quarters, 12 dimes and 14 nickels. Do they have enough to park for 4 hours? (Remember: 60 minutes = 1 hour)

15 min. x 8 quarters = 120 min. 5 min. x 12 dimes = 60 min. 2 min. x 14 nickels = 28 min. 120 + 60 + 128 = 3 hours & 28 min.

The Smiths do not have enough money to park for 4 hours.

The Smiths board the airplane to head back home. The flight attendant wants to count how many passengers are on board. Every row consists of 2, 3, and 2 seats each (see picture below). If there are 51 horizontal rows, and 13 seats are empty, how many passengers are on board?

51 rows x 7 seats = 357 seats total 357 - 13 = 344

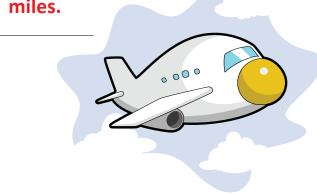
There are 344 passengers on board.



In total, the Smiths were flying in an airplane for 14 hours. If the airplane cruises at approximately 512 miles per hour, about how many miles did they travel all together?

14 hours x 512 miles = 7,168

They traveled 7,168 miles.



Math Algebra

Finding Factors

Answer Sheet

Factors are numbers that you multiply together to get another number. For example, 2 multiplied by 4 equals 8. So 2 and 4 are the factors of 8.

Find the factors of the numbers below. See the example.

$$10 = 2 \times 5$$

$$18 = 3 \times 6$$

$$24 = 4 \times 6$$

$$30 = 5 \times 6$$

$$32 = 4 \times 8$$

$$39 = 3 \times 13$$

Find the missing factors.

$$15 = 3 \times \left(5 \right)$$

$$21 = 3 \times \left(7 \right)$$

$$45 = 9 \times \boxed{5}$$

$$42 = 7 \times \boxed{6}$$

$$36 = 2 \times 2 \times 3 \times 3$$

$$60 = 2 \times 3 \times 2 \times \boxed{5}$$

$$75 = 5 \times 3 \times \boxed{5}$$

* When the factor is a prime number, it is called a prime factor.





Multiply Three Numbers

Here's a trick! First, multiply the first number by the second one. Then multiply the product of the first two numbers by the third number. Find the product of these multiplication sentences. The first one is done for you.

(8)x2

36

2 x 4 x 6

8 x6

48

4 x 3 x 2 x 2

12) x 2 x 2

24 x2

48

5 x 4 x 3

20 x3

60

 $3 \times 5 \times 3$

15 x3

45

6 x 5 x 4 x 3

30 x4x3

120 x3

360

