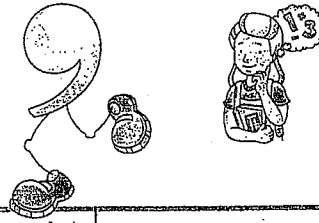


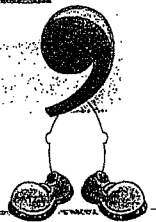
Use the following information to solve problems dealing with place value.



billions			millions			thousands					
hundred-billions	ten-billions	billions	hundred-millions	ten-millions	millions	hundred-thousands	ten-thousands	thousands	hundreds	tens	ones

Remember: In numeral form, commas separate millions, thousands, etc.

Write the following in expanded form. The first one is done for you.



1. 72,584,361

$$70,000,000 + 2,000,000 + 500,000 + 80,000 + 4,000 + 300 + 60 + 1$$

2. 37,126,489

3. 56,487,320,960

4. 90,675,409,783

Write the following using the correct word form. The first one is done for you

Use lined paper.

5. 826,531,947,683

Eight hundred twenty-six billion five hundred thirty-one million nine hundred forty-seven thousand six hundred eighty-three

6. 406,723,891,534

7. 861,750,432,971

8. 900,076,580,035

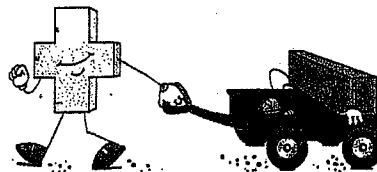
Add, Subtract, or Multiply. Find the answer to each of the following story problems and tell which operation you used to solve the problem.



1. You can make 36 single-dipped ice cream cones out of one gallon of ice cream. If you have 12 different flavors of one-gallon ice cream containers, how many cones do you need to use all of the ice cream? _____
2. Mrs. Stone hand-dipped 425 chocolates the first of May, 592 the middle of May, and 143 the last part of May. How many chocolates did she make in May? _____
3. Farmer Tim sold 4,987 pounds of potatoes last year and 12,709 pounds this year. Next year he hopes to do even better. How many more pounds of potatoes did he sell this year than last year? _____
4. Denim shorts sell for \$27.59 a pair at Lornet Department Store. Its regular denim jeans sell for \$12.18 more than its denim shorts. How much do the store's regular denim jeans cost? _____
5. If each person in the United States drank 42 gallons of milk a year, and each gallon cost \$1.98, how much would each person spend on milk a year? _____
6. Gloria bought 25 pairs of socks at \$5.80 a pair. If her mother gave her \$500, would she have enough money left to buy 6 pairs of shoes at \$30.00 each? _____

Remember: The first step when adding or subtracting decimals is to line up the decimals. If the number of decimal places is not the same, you can attach zeros to the end of a number to make it easier.

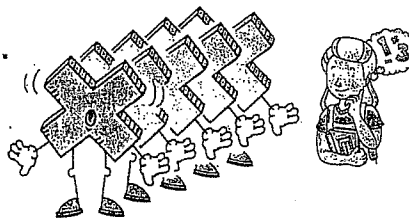
EXAMPLE:
$$\begin{array}{r} 3.45 + 5.923 = 3.450 \\ + 5.923 \\ \hline 9.373 \end{array}$$



Solve the problems.

1. $18.91 + 11.5 =$ _____
2. $3.806 + 5.29 =$ _____
3. $437.7 + 13.906 =$ _____
4. $42.881 + 8.96 =$ _____
5. $34.09 - 9.407 =$ _____
6. $185.04 - 165.9 =$ _____
7. $379.76 - 37.435 =$ _____
8. $\$224.00 - \$116.98 =$ _____
9. $49.071 + 23.015 =$ _____
10. $85.089 - 34.12 =$ _____

Mental Math for Multiples of 10, 100, and 1,000.
Remember to use mental math!



- | | | |
|--------------------------------|--------------------------------|---------------------------------|
| 1. $7 \times 10 =$ _____ | 2. $16 \times 10 =$ _____ | 3. $10 \times 92 =$ _____ |
| 4. $100 \times 8 =$ _____ | 5. $50 \times 50 =$ _____ | 6. $7 \times 600 =$ _____ |
| 7. $500 \times 200 =$ _____ | 8. $5 \times 900 =$ _____ | 9. $70 \times 60 =$ _____ |
| 10. $30 \times 400 =$ _____ | 11. $200 \times 300 =$ _____ | 12. $400 \times 600 =$ _____ |
| 13. $8 \times 1,000 =$ _____ | 14. $9 \times 3,000 =$ _____ | 15. $30 \times 5,000 =$ _____ |
| 16. $9,000 \times 700 =$ _____ | 17. $7,000 \times 50 =$ _____ | 18. $60 \times 8,000 =$ _____ |
| 19. $52 \times 2,000 =$ _____ | 20. $400 \times 300 =$ _____ | 21. $5,000 \times 50 =$ _____ |
| 22. $250 \times 200 =$ _____ | 23. $15,000 \times 30 =$ _____ | 24. $200,000 \times 40 =$ _____ |



Multiplying by 2- and 3-Digit Numbers.

Remember:

$$\begin{array}{r} 218 \\ \times 36 \\ \hline 1308 \\ 654 \\ \hline 7848 \end{array}$$

$$\begin{array}{r} 429 \\ \times 375 \\ \hline 2145 \\ 3003 \\ 1287 \\ \hline 160875 \end{array}$$

$$\begin{array}{r} 293 \\ \times 704 \\ \hline 1172 \\ 000 \\ 2051 \\ \hline 206272 \end{array}$$



- | | | | |
|---|--|--|--|
| 1. $\begin{array}{r} 826 \\ \times 47 \\ \hline \end{array}$ | 2. $\begin{array}{r} 584 \\ \times 29 \\ \hline \end{array}$ | 3. $\begin{array}{r} 249 \\ \times 63 \\ \hline \end{array}$ | 4. $\begin{array}{r} 973 \\ \times 51 \\ \hline \end{array}$ |
| 5. $\begin{array}{r} 670 \\ \times 94 \\ \hline \end{array}$ | 6. $\begin{array}{r} 776 \\ \times 68 \\ \hline \end{array}$ | 7. $\begin{array}{r} 845 \\ \times 77 \\ \hline \end{array}$ | 8. $\begin{array}{r} 392 \\ \times 82 \\ \hline \end{array}$ |
| 9. $\begin{array}{r} 628 \\ \times 274 \\ \hline \end{array}$ | 10. $\begin{array}{r} 831 \\ \times 347 \\ \hline \end{array}$ | 11. $\begin{array}{r} 609 \\ \times 149 \\ \hline \end{array}$ | 12. $\begin{array}{r} 586 \\ \times 781 \\ \hline \end{array}$ |

Multiplying Whole Numbers and Decimals. Remember to put the decimal point in the correct place in the product.



1.
$$\begin{array}{r} 0.12 \\ \times 6 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 0.08 \\ \times 7 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 4.6 \\ \times 3 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 5.05 \\ \times 8 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 6.5 \\ \times 13 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 1.906 \\ \times 28 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 7.0216 \\ \times 52 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 6.65 \\ \times 77 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 5.364 \\ \times 93 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 359.073 \\ \times 24 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 5.9081 \\ \times 71 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 12.504 \\ \times 99 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 8.709 \\ \times 56 \\ \hline \end{array}$$

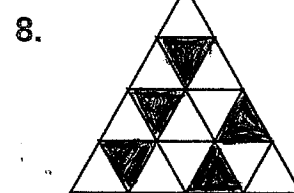
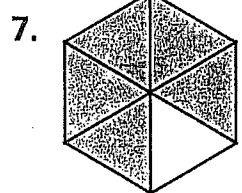
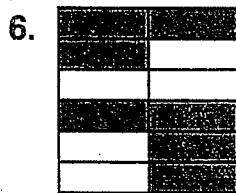
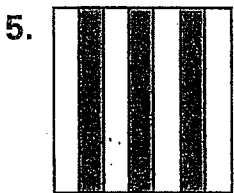
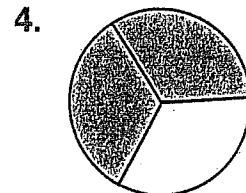
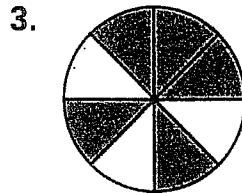
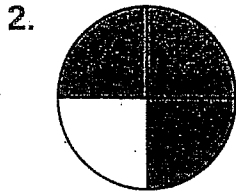
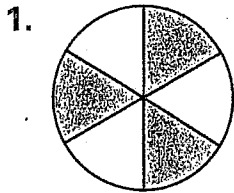
14.
$$\begin{array}{r} 27.035 \\ \times 93 \\ \hline \end{array}$$

15. Jan works delivering pizza and gets paid \$37.40 a night. She works 23 nights each month. How much does Jan earn each month? _____

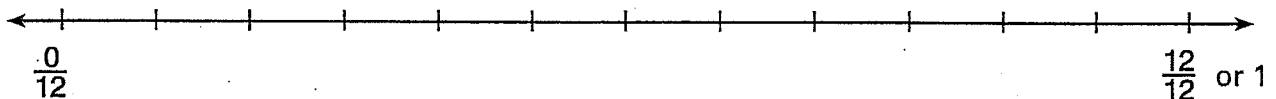
16. Jake works at a grocery store. He gets paid \$8.65 an hour for each hour he works. He usually works 37 hours a week. How much does he earn in a week? _____
How much would he earn in 4 weeks? _____

Remember: When talking about fractions, the denominator names the number of equal parts of a whole amount, and the numerator names the number of parts being taken from the whole.

Write the fraction that tells what part is shaded.



Write each fraction on the number line.



9. $\frac{3}{12}$

10. $\frac{7}{12}$

11. $\frac{10}{12}$

12. $\frac{1}{12}$

13. $\frac{5}{12}$

14. $\frac{9}{12}$

Use < (less than), > (greater than), and = (equal to) to compare these fractions.

15. $\frac{7}{15} \square \frac{9}{15}$

16. $\frac{3}{4} \square \frac{6}{8}$

17. $\frac{4}{6} \square \frac{1}{3}$

18. $\frac{5}{9} \square \frac{5}{8}$

19. $\frac{7}{8} \square \frac{14}{16}$

20. $\frac{9}{9} \square \frac{8}{8}$

21. $\frac{1}{10} \square \frac{1}{5}$

22. $\frac{14}{20} \square \frac{9}{10}$

23. $\frac{6}{12} \square \frac{1}{2}$

Multiples and Common Multiples.



Remember: A multiple is a number exactly divisible by another number. 6 12 18 24 30 are multiples of 6.

List 5 or 6 multiples for the following numbers.

1. 5 _____

2. 10 _____

3. 9 _____

4. 12 _____

5. 3 _____

6. 2 _____

Remember: The common multiples for 2 and 4 are 4, 8, 12, or other "numbers in common."

List 3 common multiples for these numbers.

7. 3 and 4 _____

8. 4 and 7 _____

9. 5 and 10 _____

10. 6 and 8 _____

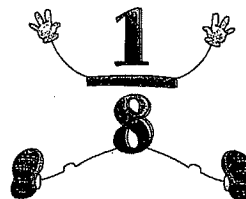
11. 2 and 9 _____

12. 5 and 6 _____

13. What is the least common multiple for 2 and 9? _____

14. For 5 and 6? _____ 15. For 3 and 4? _____ 16. For 8 and 10? _____

Simplify the fractions down to the lowest term possible.



EXAMPLE:

1. $\frac{5}{10} = \frac{1}{2}$

2. $\frac{8}{12} = \underline{\quad}$

3. $\frac{6}{9} = \underline{\quad}$

4. $\frac{15}{25} = \underline{\quad}$

5. $\frac{50}{75} = \underline{\quad}$

6. $\frac{16}{20} = \underline{\quad}$

7. $\frac{9}{72} = \underline{\quad}$

8. $\frac{18}{45} = \underline{\quad}$



9. $\frac{24}{32} = \underline{\quad}$

10. $\frac{75}{100} = \underline{\quad}$

11. $\frac{36}{45} = \underline{\quad}$

12. $\frac{16}{24} = \underline{\quad}$

13. $\frac{10}{35} = \underline{\quad}$

14. $\frac{4}{18} = \underline{\quad}$

15. $\frac{9}{15} = \underline{\quad}$

16. $\frac{14}{21} = \underline{\quad}$



17. $\frac{150}{200} = \underline{\quad}$

18. $\frac{32}{40} = \underline{\quad}$

19. $\frac{81}{135} = \underline{\quad}$

20. $\frac{280}{420} = \underline{\quad}$

Divide to find the fraction of a number.

1. $\frac{1}{2}$ of 10 = ____ 2. $\frac{1}{8}$ of 24 = ____ 3. $\frac{1}{6}$ of 48 = ____ 4. $\frac{1}{5}$ of 45 = ____
 5. $\frac{1}{4}$ of 32 = ____ 6. $\frac{1}{3}$ of 60 = ____ 7. $\frac{1}{7}$ of 56 = ____ 8. $\frac{1}{12}$ of 36 = ____



Find the equivalent fractions.

9. $\frac{3}{4} = \frac{\quad}{8}$	10. $\frac{5}{8} = \frac{\quad}{16}$	11. $\frac{10}{25} = \frac{2}{\quad}$	12. $\frac{4}{9} = \frac{\quad}{36}$
13. $\frac{7}{12} = \frac{28}{\quad}$	14. $\frac{6}{6} = \frac{12}{\quad}$	15. $\frac{3}{4} = \frac{\quad}{20}$	16. $\frac{7}{15} = \frac{\quad}{45}$

Find the equivalent fractions.

17. $\frac{9}{12} = \frac{36}{\quad}$	18. $\frac{2}{3} = \frac{10}{\quad}$	19. $\frac{3}{10} = \frac{18}{\quad}$	20. $\frac{1}{3} = \frac{3}{\quad}$
21. $\frac{5}{8} = \frac{\quad}{72}$	22. $\frac{2}{5} = \frac{8}{\quad}$	23. $\frac{5}{12} = \frac{\quad}{36}$	24. $\frac{11}{24} = \frac{44}{\quad}$

Reduce the fractions to the lowest terms that make whole or mixed numbers.



25. $\frac{56}{6} =$	26. $\frac{14}{4} =$	27. $\frac{38}{8} =$	28. $\frac{51}{8} =$
29. $\frac{17}{2} =$	30. $\frac{35}{5} =$	31. $\frac{14}{6} =$	32. $\frac{10}{8} =$

Mixed Practice. Find the missing factors.

1. $67 \times \underline{\quad} = 536$ 2. $96 \times \underline{\quad} = 864$ 3. $\underline{\quad} \times 77 = 385$
 4. $\underline{\quad} \times 84 = 924$ 5. $2,210 \div \underline{\quad} = 85$ 6. $5,518 \div \underline{\quad} = 62$
 7. $29 \times \underline{\quad} = 1,972$ 8. $19,347 - \underline{\quad} = 18,470$ 9. $23,432 + \underline{\quad} = 24,089$
 10. $32 \times \underline{\quad} = 6,400$ 11. $\underline{\quad} \times 75 = 11,250$ 12. $4,905 \div \underline{\quad} = 327$
 13. $56,993 - \underline{\quad} = 55,598$ 14. $4,266 \div \underline{\quad} = 711$ 15. $33 \times \underline{\quad} = 17,886$
 16. $\underline{\quad} + 34,561 = 40,090$ 17. $307 \times \underline{\quad} = 18,113$ 18. $741 \times \underline{\quad} = 61,503$
 19. $50,000 \div \underline{\quad} = 1,250$ 20. $\underline{\quad} \times 56 = 16,016$ 21. $40,572 \div \underline{\quad} = 126$
 22. $19,263 + \underline{\quad} = 66,390$ 23. $73,477 - \underline{\quad} = 62,305$ 24. $\underline{\quad} - 80,399 = 110,099$

Multiplying Fractions Pictures.


Question: How do you picture what $\frac{1}{2}$ of $\frac{1}{2}$ is?


Picture  $\frac{1}{2}$ of a box as $\frac{1}{2}$ of 1. Now picture what $\frac{1}{2}$ of $\frac{1}{2}$ is. 


So $\frac{1}{2}$ of $\frac{1}{2} = \frac{1}{4}$, or $1 \div 2 \div 2 = \frac{1}{4}$.


With the above information, illustrate and answer the following multiplication problems. Reduce to the simplest terms.


Remember: When you multiply fractions, the product gets smaller.


1. $\frac{1}{2} \times \frac{3}{4} =$ _____ 

2. $\frac{1}{4} \times \frac{1}{2} =$ _____ 

3. $\frac{1}{2} \times \frac{1}{3} =$ _____ 

4. $\frac{1}{3} \times \frac{2}{3} =$ _____ 

5. $\frac{2}{3} \times \frac{1}{6} =$ _____ 

6. $\frac{1}{3} \times \frac{1}{4} =$ _____ 

7. $\frac{2}{3} \times \frac{4}{5} =$ _____ 

8. $\frac{2}{3} \times \frac{2}{3} =$ _____ 

9. $\frac{1}{4} \times \frac{2}{3} =$ _____ 

10. $\frac{3}{4} \times \frac{2}{5} =$ _____ 

Mixed Practice.

1. \$24.98 14.20 10.19 <u>+ 82.27</u>	2. \$89.82 42.47 8.18 <u>+ 75.03</u>	3. 86,945 6,913 7,428 <u>+ 5,317</u>	4. 3,921 1,823 4,765 <u>+ 5,283</u>
--	---	---	--



5. 674 <u>x 392</u>	6. 5,978 <u>x 703</u>	7. 95.27 <u>x 5.93</u>	8. 438.5 <u>x 4.86</u>
------------------------	--------------------------	---------------------------	---------------------------

9. $74 \overline{) 95,634}$

10. $82 \overline{) 809,593}$

11. $69 \overline{) 593,745}$

Dividing Fractions to Ninths

$$\frac{1}{5} \div \frac{4}{9} =$$

$$\frac{2}{5} \div \frac{1}{7} =$$

$$\frac{5}{6} \div \frac{4}{6} =$$

$$\frac{4}{6} \div \frac{4}{6} =$$

$$\frac{1}{9} \div \frac{1}{4} =$$

$$\frac{2}{3} \div \frac{1}{2} =$$

$$\frac{4}{7} \div \frac{2}{4} =$$

$$\frac{7}{8} \div \frac{5}{7} =$$

$$\frac{6}{8} \div \frac{1}{6} =$$

$$\frac{1}{2} \div \frac{4}{7} =$$

Match the geometric terms with their definitions.

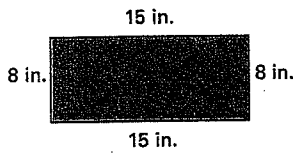
- | | |
|---------------------------|--|
| _____ segment | a. lines that never meet |
| _____ ray | b. rays with the same endpoint |
| _____ angles | c. a figure that can be folded and both parts fit perfectly |
| _____ perpendicular lines | d. has an end point or a starting point and can go from there in one direction |
| _____ parallel lines | e. a part of a line that can be named by its endpoints |
| _____ congruent | f. lines that intersect to form right angles of 90 degrees |
| _____ symmetric | g. ways of labeling endpoints on a segment |
| _____ congruent segments | h. figures having the same shape and size |
| _____ circumference | i. segment that passes through the center of a circle and has both endpoints on the circle |
| _____ radius | j. a line connecting the center of a circle to a point on the outside of a circle |
| _____ diameter | k. the distance around a circle |
| _____ AB or BA | l. have equal lengths |

Illustrate each of these geometric terms.

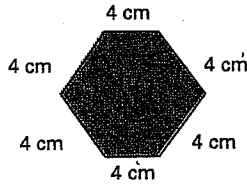
- | | | |
|-------------------------|------------------------|------------------|
| 1. segment | 2. parallel lines | 3. circumference |
| 4. ray | 5. congruent | 6. radius |
| 7. angle | 8. symmetric | 9. diameter |
| 10. perpendicular lines | 11. congruent segments | 12. AB or BA |

Find the Perimeter.

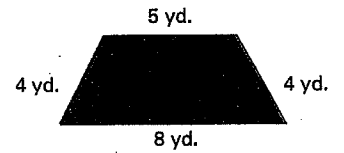
Remember: To find the perimeter, you have to add the lengths of each side.



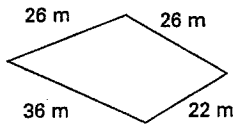
1. ___ inches



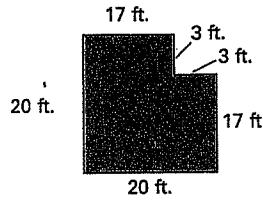
2. ___ centimeters



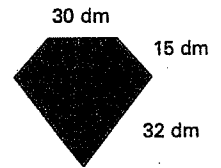
3. ___ yards



4. ___ meters



5. ___ feet

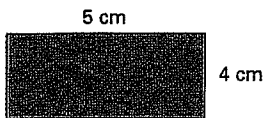
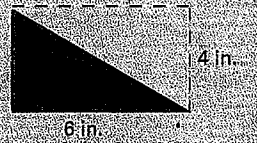


6. ___ decimeters

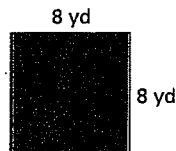
Find the Area.

Remember: Area is measured in square units.
Area = length \times width.

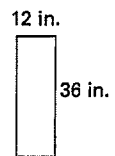
Remember: Area = $\frac{1}{2} \times$ base \times height
for triangles



7. ___ cm² (square centimeters)



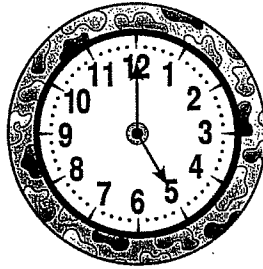
8. ___ square yards



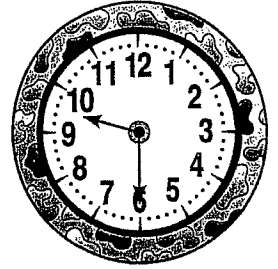
9. ___ square inches

What Time Is It?

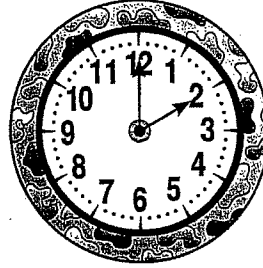
1. What time was it 2 hours and 30 minutes earlier?



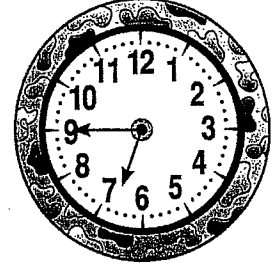
2. What time was it 1 hour and 15 minutes earlier?



3. What time will it be in 4 hours and 30 minutes?



4. What time was it 3 hours and 45 minutes earlier?



5. Kevin got to school at 8:25 a.m. He was 15 minutes late. What time did school start?

6. Stacy has 45 minutes left before the concert ends. It is 10:05 p.m. What time does the concert end?

7. Ruth left 35 minutes before her piano lesson that was at 9:45 a.m. What time did she leave?

8. Jasmine left the store at 10:15 a.m. and drove home in 25 minutes. What time did she arrive home?