

Name \_\_\_\_\_

1. Compute:

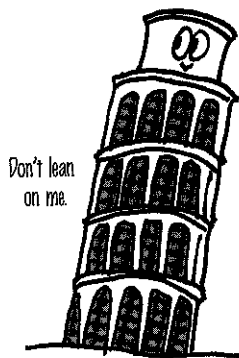
**$22,000 \times 40,000 =$**

2. The Great Wall of China, one of the world's great wonders, is 23,560,000 feet long. Write this number in scientific notation.

3. What will determine whether the answer will be a positive or negative number?

**$-b^3 + (-12) =$**

4. What space figure is most like the Leaning Tower of Pisa?



5. Leonardo has a chance to win a trip to see one of these wonders of the world. He will draw an envelope from a box that has one envelope for each of these places. What is the probability that he will draw tickets to see something that is outside North America?

**Eiffel Tower**

**Niagara Falls**

**Ruins of Rome**

**Rock of Gibraltar**

**Grand Canyon**

**Great Pyramid**

Name \_\_\_\_\_

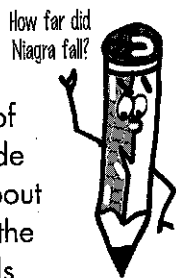
1. Simplify the equation.

**$q + p + 8 = 2(q - 2)$**

2. Write the fractions in lowest terms.

**$\frac{8}{22}$        $\frac{5}{45}$        $\frac{12}{60}$**

3. In 1931, about 80,000 tons of rock fell from the American side of Niagara Falls. In 1954, about 185,000 tons broke off from the same area. How many pounds of rock is this?



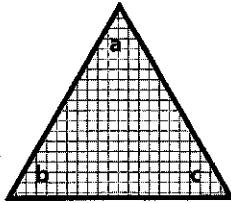
5. Set up a proportion and solve the problem. Show your work.

**A large group of high school students set off on a climb to Machu Picchu. Nine out of the first group of 22 made it the whole way on the first day. At this rate, how many students out of the entire group of 176 will make it all the way to the top of the ruins?**

Compute:  **$0.33 \div 0.6 =$**

Name \_\_\_\_\_

1. Give the measure of each angle.

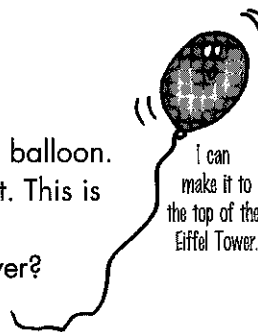


2. Compute:  
What is the difference between negative nine hundred fifty and twelve hundred?

3. Solve the equation.

$$-11c = 4c - 70$$

4. A child in Paris let go of a new balloon. It rose to a height of 316.8 feet. This is 30 percent of the height of the Eiffel Tower. How tall is the tower?



5. The Panama Canal is one of the world's great feats of engineering. The 50-foot-long waterway took 34 years to complete. On the average, how many feet of the canal were completed each month?

- a. 6                      d. 0.122  
b. 2.7                  e. 17.6  
c. 8.16                 f. 2.54

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1. Compute:  $\frac{5}{3} \times \frac{2}{6} \times \frac{1}{9} =$

2. After walking across the Golden Gate Bridge in San Francisco, California, Sam bought a copper replica of the structure. He paid for the \$12.75 souvenir with a \$50 bill. Describe three different possibilities for the change he received.

3. Solve the problem. Write the answer in scientific notation.

$$(18.06 \times 10^9) \div (4.3 \times 10^3) =$$

4. What number is 1.0909 greater than 0.499?

5. What measurement unit would you use to find . . .
- a. the length of the Chunnel?  
b. the time that has elapsed since the Taj Majal was built?  
c. the weight of each block of stone used in the construction of the Great Pyramid?  
d. the amount of water that flows over Niagara Falls in an hour?  
e. the amount of water a hiker drinks on a day hike along the Great Wall of China?  
f. the height of the Space Needle?

What is the Chunnel?



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1. Which is greater?

- a. 30% of \$1,400
- b. 18% of \$2,000
- c. 65% of \$975
- d. 9% of \$3,950

3. The value of  $3.052 \times 10^7$  is

- a. 305,200,000
- b. 35,200,000
- c. 30,520,000,000
- d. 30,520,000

2. Is this solution accurate?

$$95 - 8x = x^2 + (-114)$$

$$x = 11$$

4. Compute:

$$1,234 \times 5,000 =$$

## 5. Challenge Problem

The Japanese bullet trains are amazing feats of ingenuity and engineering. Thousands of people travel throughout Japan every day at speeds of up to 300 kilometers per hour. Great numbers of these commuters are occupied with an extremely popular number puzzle called Sudoku.



The puzzle contains nine blocks (or cells) of nine squares within a large square. This puzzle is solved by placing the digits 1–9 one time each in each row and column. In addition to this rule, each of the digits may appear only once in each nine-space cell. Sudoku puzzles range in difficulty from fairly easy to very difficult. See how fast you can solve this easy Sudoku puzzle.

7		5		8		3		6
1	6		9		7		4	2
	4	8	3		6			5
4		6	7	2	3	9		8
5		9	1		8		6	
3			6	9	5	1	7	
9	3		8		4	5	2	1
		1		3		4	8	
5	4	2		1			3	9