Name _____ Date _____ Per ____

What Did the Math Teacher Say After Spending 8 Hours in the Ice and Snow?

For each problem, label a variable (let x = the unknown), then write and solve an equation. Find your equation in the column at the right. Write the letter of the equation in the box at the bottom that contains the solution to the problem.

1 A set of 8 dessert dishes cost $20. What was the cost of each dish?

2 Ben and Jerry together own 24 comic books. If Ben owns 6 comic books, how many does Jerry own?

3 Hans Klobber sells vacuum cleaners. He gets to keep one eighth of his sales as a commission. How much must he sell in order to earn $1000?

4 On first down, a football team had a loss of 8 yd. After two downs, the team had an overall gain of 20 yd. How many yards were gained on second down?

5 After she wrote a check for $240, May Bounce had a balance in her checking account of –$6. What was her balance before she wrote the check?

6 A bank of 8 floodlights together use 1000 watts of power. How much power is used by each bulb?

7 Between noon and 9 P.M., the temperature dropped 20°F. If the temperature was –8°F at 9 P.M., what was the temperature at noon?

8 If a strawberry pie is divided into 6 equal slices, each slice has 240 calories. How many calories are in the whole pie?

9 A chest was resting on the ocean floor 1000 ft below the surface. It was lifted to the deck of a ship 8 ft above the surface. How far was the chest lifted?

10 When all the kids who tried out for Little League were divided into teams of 20 players, there were exactly 8 teams. How many kids tried out?

equations

R $\frac{1}{8}x = 1000$

S $x + 8 = 1000$

M $\frac{x}{20} = 8$

B $8x = 20$

N $\frac{x}{6} = 240$

U $-8 + x = 20$

E $6x = 240$

R $-1000 + x = 8$

B $8x = 1000$

M $x + 6 = 24$

T $\frac{x}{8} = -20$

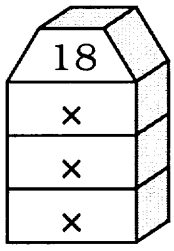
I $x - 240 = -6$

A $x - 20 = -8$

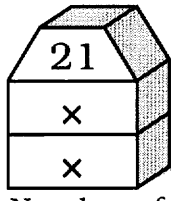
184	$234	175 W	12°F	18	988 ft	1440 cal	28 yd	160	$2.50	26°F	125 W	1008 ft	$8000	32 yd

Factor Towers

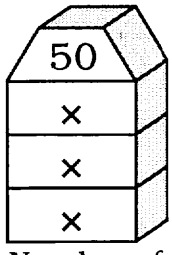
Write a pair of factors in each "story" of the factor tower. Count the number of *different* factors and write this number in the blank. Then answer the questions below.



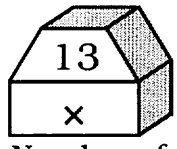
Number of factors____



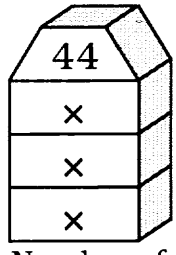
Number of factors____



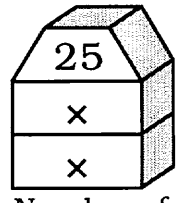
Number of factors____



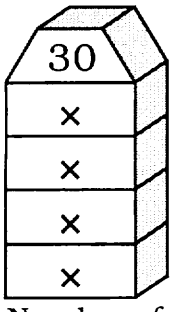
Number of factors____



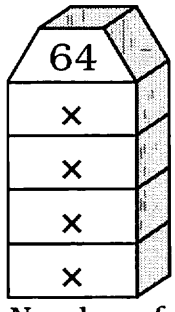
Number of factors____



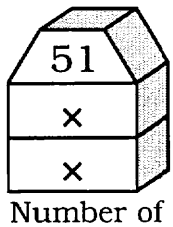
Number of factors____



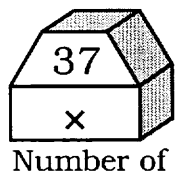
Number of factors____



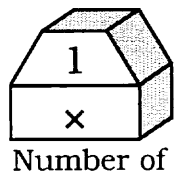
Number of factors____



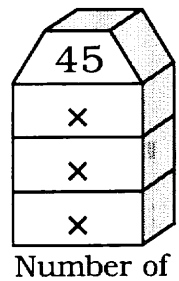
Number of factors____



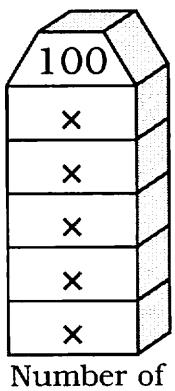
Number of factors____



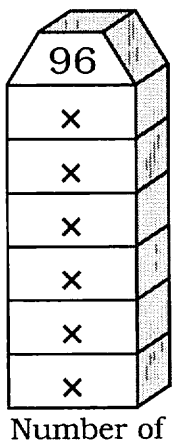
Number of factors____



Number of factors____



Number of factors____



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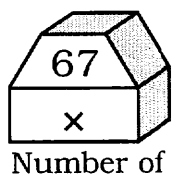
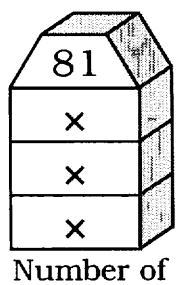


Number of factors____



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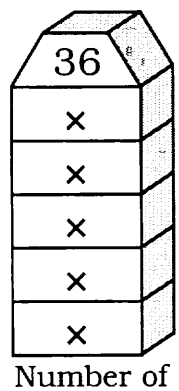

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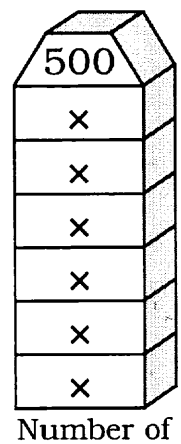

Number of factors____

1. Numbers that are multiplied to form a product are called _____.

2. Which of the "tower numbers" have exactly two factors? _____

3. Numbers that have exactly two factors are called _____ numbers.

4. Numbers that are squares of integers are called _____ _____.

5. Which of the "tower numbers" have an odd number of factors? _____

6. Numbers that have an odd number of factors are _____ _____.

7. List all the prime numbers less than 20: _____

8. List all the perfect squares less than 101: _____