

SIGMA

MIDDLE / JUNIOR HIGH MATHEMATICS LEAGUE

CONTEST NUMBER 1

GRADE 7

NAME: _____

SCORE : _____

TIME: 30 minutes

ANSWER COLUMN

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| <p>1. A recent report stated that the five most popular ice cream flavors are Vanilla (26%), Chocolate (12.9%), Neopolitan (4.8%), Strawberry (4.3%) and Cookies 'n' Cream (4%). If 1000 people were interviewed concerning their favorite flavor of ice cream, how many would expect to say Strawberry?</p> | |
| <p>2. Let $a + b + c + d = 29$, $a + c = 13$, and $a + b + d = 19$. What is the value of a?</p> | |
| <p>3. A pound is 16 ounces. Nine pennies weigh one ounce. If you have two pounds of pennies, how much money (in dollars and cents) do you have?</p> | |
| <p>4. Let a and b be digits of a three-digit number "6ab" that is greater than 600. If "6ab" is divisible by 4, how many possibilities are there for the two-digit number "ab"?</p> | |
| <p>5. According to the Musgrave Pencil company the average pencil can be sharpened 17 times (if sharpened well) and will draw a line 35 miles long. How many times will I have to sharpen the pencil if I draw a line 10 miles long?</p> | |
| <p>6. How many two-digit positive integers less than 100 have the units digit greater than the tens digit?</p> | |
| <p>7. A digital clock displays 1 or 2 digits for the hours and 2 digits for the minutes. Between the hours of 1:00 p.m. and 5:00 p.m. how many three-digit displays will represent a perfect square number?</p> | |
| <p>8. Rock Falls and the following towns are located along highway 30 in the U.S. The town of Columbus is west of Rock Falls. Ames is east of Columbus but west of Rock Falls. Lexington is east of Rock River but west of Columbus. Soda Springs is west of Rock Falls and Rock River. Which town is farthest west?</p> | |