MATH REVIEW

Whole Numbers
The whole numbers are the counting numbers and 0. The whole numbers are 0, 1, 2, 3, 4, 5, …

Place Value
The position, or place, of a digit in a number written in standard form determines the actual value the digit represents. This table shows the place value for various positions:

Place (underlined)	Name of Position
1 000	Ones (units) position
1 000	Tens
1 000	Hundreds
1 000	Thousands
1 000 000	Ten thousands
1 000 000	Hundred Thousands
1 000 000	Millions
1 000 000 000	Ten Millions
1 000 000 000	Hundred millions
1 000 000 000	Billions

Example:
The number 721040 has a 7 in the hundred thousands place, a 2 in the ten thousands place, a one in the thousands place, a 4 in the tens place, and a 0 in both the hundreds and ones place.

Expanded Form
The expanded form of a number is the sum of the values of each digit of that number.

Example:
9836 = 9000 + 800 + 30 + 6.

Ordering
Symbols are used to show how the size of one number compares to another. These symbols are < (less than), > (greater than), and = (equals.) For example, since 2 is smaller than 4 and 4 is larger than 2, we can write: 2 < 4, which says the same as 4 > 2 and of course, 4 = 4.

To compare two whole numbers, first put them in standard form. The one with more digits is greater than the other. If they have the same number of digits, compare the most significant digits (the leftmost digit of each number). The one having the larger significant digit is greater than the other. If the most significant digits are the same, compare the next pair of digits from the left. Repeat this until the pair of digits is different. The number with the larger digit is greater than the other.

Example: 402 has more digits than 42, so 402 > 42.

Example: 402 and 412 have the same number of digits. We compare the leftmost digit of each number: 4 in each case. Moving to the right, we compare the next two numbers: 0 and 1. Since 0 < 1, 402 < 412.

Rounding Whole Numbers
To round to the nearest ten means to find the closest number having all zeros to the right of the tens place. Note: when the digit 5, 6, 7, 8, or 9 appears in the ones place, round up; when the digit 0, 1, 2, 3, or 4 appears in the ones place, round down.

Examples:

Rounding 119 to the nearest ten gives 120.

Rounding 155 to the nearest ten gives 160.

Rounding 102 to the nearest ten gives 100.

Similarly, to round a number to any place value, we find the number with zeros in all of the places to the right of the place value being rounded to that is closest in value to the original number.

MATH TIME
WORD PROBLEMS
Complete the word problems below.

1. Desni went to the video arcade. He had 11 nickels, 5 quarters and 42 dimes. How much money did Desni have to play games with?

$_____

2. Kiersten wants to go to McDonalds. She wants to buy a medium french fry for $0.99 and an ice cream cone for $0.99. Her total including sales tax was $2.14. How much was the sales tax?

$_____

3. Libby likes saving her change. She has 63 nickels, 108 pennies, 26 quarters and 88 dimes. How much change does Libby have?

$_____

4. Jayla is putting books in her bookcase. She has already put 74 books in the bookcase but she has 225 books. How many more books does she have to put in the bookcase?

$_____

5. Amber has 36 smarties to share among herself and 3 friends. How many smarties will each of them receive?

$_____

6. You have 5 mini pizzas to share with 4 friends. You're cutting the pizzas in half, how much will each friend get?

$_____

7. It takes 90 days to save enough money for a new book I want. Estimate how many months that is?

$_____

8. You have 12 mp3 songs on your computer. 1/4 of them don't work. How many mp3 songs do you have to buy to replace the ones that don't work?

$_____