# Tips for the Math Test

## KEY WORDS IN THE QUESTION
1. Read the question carefully.
   The question is usually in the last sentence.

2. So you will know exactly what to do, look in the question for key words, such as total, difference, cut into, cut off, average mean, median, and so on¡

3. Difference always means subtract.
   Be sure you have the larger number on TOP when you subtract!

4. However, there is one exception to this. If you have a problem where one number is positive and the other is negative, you should ADD.

   For example,
   - the difference between (-10) degrees and (15) degrees equals 25.  (ADD)

   - the difference between 2000 feet BELOW sea level (-2000) and a mountain that is (12,000) feet ABOVE sea level equals 14,000.  (ADD)

## AVERAGE AND MEAN
5. AVERAGE and MEAN are the SAME.
   Add the numbers and divide by the number of numbers you add.

## MEDIAN
6. MEDIAN is the **ONE NUMBER** in the middle.
   To find the MEDIAN, make sure you put the numbers in order FIRST.

## DECIMALS
7. You MUST remember

   **¼ is .25**
   **½ is .50**
   **¾ is .75**
   **$^1/_3$ is .33**

   Write these down on your scratch paper before you start the test.

8. Line up decimals when adding or subtracting. REMEMBER THAT A DECIMAL POINT ALWAYS GOES AFTER A WHOLE NUMBER.

9. If you need to change other fractions into decimals, and you WILL, remember to divide. Put the top number inside the box, and add a DECIMAL before you add 2 zeros.

   Try it.  Change $^2/_5$ into a decimal.

## PROPORTIONS
10. ALL of the following will be proportions.
    - miles, inches = miles, inches
    - shadows, height = shadows, height
    - small triangle, large triangle = small triangle, large triangle
    - small photo, large photo = small photo, large photo
    - parts, hours = parts, hours
    - cost, yards = cost yards

## GEOMETRY
11. Be sure you use the right formula!

## AREA
12. The answers in **AREA** problems are always given in square units, such as square feet, square inches, or square yards.

## VOLUME
13. The answers in **VOLUME** problems are always given in cubic units, such as cubic feet, cubic inches or cubic yards.

## PERIMETER
14. To find the distance around a figure means you will be finding **PERIMETER**.

## PERCENTS
15. MULTIPLY when a problem GIVES A PERCENT, such as 60% of 200.
    - add a decimal point at the end of the %,
    - move the decimal point 2 places to the left,
    - MULTIPLY (200 x .60)

16. DIVIDE when a problem GIVES A PERCENT, such as 10 is WHAT PERCENT of 40.
    - Set up a FRACTION ($^{10}/_{40}$)
    - DIVIDE (10 divided by 40)

## PROBABILITIES
17. Set up probabilities as fractions, and reduce. The total goes below the fraction bar.

## RATIOS
18. Set up ratios as fractions, and reduce.
    What is listed FIRST, goes on TOP.
    What is listed SECOND, goes on BOTTOM.

## READ CAREFULLY
19. Don't forget that every time you do a single step, your answer will be a choice!

20. Go back and READ the question again to make sure you have finished it.

21. Most of the percent problems will LIKELY have a second step, as will many other math problems.

22. Don't let your answers guide you into choosing a wrong answer.

**Follow these tips, and you will be fine!  Good luck!**