

Name: \_\_\_\_\_

Heatherwood Mathletes  
Heatherwood Math Olympics 2003-2004: Test 2  
February 12, 2004

**A. Mixed Addition and Subtraction (2 points each)**

$$\begin{array}{r} 32 \\ + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 68 \\ - 25 \\ \hline \end{array}$$

$$\begin{array}{r} 98 \\ + 34 \\ \hline \end{array}$$

$$\begin{array}{r} 2.45 \\ - 1.25 \\ \hline \end{array}$$

**Addition/Subtraction Word Problem (4 points)**

The Math Olympics test is composed of 38 problems. Vicky did not try 5 problems and made mistakes in another 5 problems. How many problems did she get right?

**B. Multiplication (3 points each)**

$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 22 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 34 \\ \times 16 \\ \hline \end{array}$$

**C. Division (3 points each) – express result as a number.**

$$16/4 =$$

$$45/9 =$$

$$37/6 =$$

$$83/9 =$$

**Multiplication/Division Word Problem (3 points)**

15 boys and 9 girls played in a soccer tournament and were divided evenly into 4 teams. How many kids were there on each team?

**D. Adding and Subtracting Fractions (2 points each)**

$$\frac{1}{3} + \frac{2}{3} =$$

$$\frac{1}{4} - \frac{1}{8} =$$

$$1\frac{1}{2} + \frac{2}{3} =$$

$$1\frac{2}{3} - \frac{5}{6} =$$

**E. Multiplying and Dividing Fractions (2 points each)**

$$\frac{1}{2} \times \frac{1}{3} =$$

$$2\frac{1}{2} \times \frac{1}{5} =$$

$$\frac{2/3}{1/2} =$$

$$1\frac{1}{2} / \frac{3}{2} =$$

**F. Reducing Fractions: rewrite these fractions in simplest terms (2 points each)**

$$\frac{2}{4} =$$

$$\frac{5}{15} =$$

$$\frac{14}{35} =$$

**G. Convert These Decimals to Fractions (2 points each)**

$$0.1 =$$

$$1.25 =$$

$$2.40 =$$

**Fraction Word Problem (4 points)**

John ate one half of a pizza and Marry ate one fourth. What fraction of the pizza was left?

**H. Solve for  $x$  (3 points each)**

$$x - 7 = 2$$

$$x + 7 = 10$$

$$\frac{x}{5} = 4$$

$$5x + 2 = 12$$

$$5(x + 1) + 6 = 26$$

$$3(x + 1) + x = 19$$

**I. Write the Equation and Don't Solve (4 points)**

**Problem 1.** Twice the sum of a certain number and 59 is 134. Write the equation for this problem.

**Problem 2.** There are two consecutive whole numbers such that half their sum is 35? What's the smaller of the numbers?

**Problem 3.** I have a bag of marbles. I gave a third of them to Tina and then a half of what was left to Tom. There are 8 marbles left. How many marbles did I start with?