

Name \_\_\_\_\_ School Team \_\_\_\_\_

Event 1: Problem Solving (no calculators)

7th/8th grade Math Meet '08

Part 1: Computations (2 pts. each)

Answers must be completely simplified.

1)  $16 \div 1.25 = \boxed{\phantom{000}}$

2)  $15 / 35 = \boxed{\phantom{00}} / 63$

3)  $\frac{(15 \times 16 \times 27)}{(12 \times 21 \times 60)} = \boxed{\phantom{000}}$

4)  $(9 \times 7 \times 4) - 1 = \boxed{\phantom{000}} \div 8$

5)  $102 / (85 - \boxed{\phantom{00}}) = 6$

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Part 2: Defining a new operation (3 pts. each)

Let's define a new operation:  $N \text{ ; } M = \frac{N + M}{N} + \frac{N - M}{M}$

For example,  $2 \text{ ; } 3 = \frac{2 + 3}{2} + \frac{2 - 3}{3} = 5/2 - 1/3 = 13/6$  or  $2 \frac{1}{6}$

1)  $3 \text{ ; } 4 =$

2)  $1 \text{ ; } 7 =$

3)  $5 \text{ ; } 12 =$

Circle one:

4) Does  $N \text{ ; } M = M \text{ ; } N$  ?

yes

no

5) If  $N > 0$  and  $M > 0$ , then  $N \text{ ; } M > 0$  ...

always

sometimes

never