

Name _____ ANSWER KEY _____ 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.

$$1) 16 \div 1.25 = \boxed{12.8}$$

$$2) 15 / 35 = \boxed{27} / 63$$

$$3) \frac{(15 \times 16 \times 27)}{(12 \times 21 \times 60)} = \boxed{3/7}$$

$$4) (9 \times 7 \times 4) - 1 = \boxed{2008} \div 8$$

$$5) 102 / (85 - \boxed{68}) = 6$$

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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) $3 \text{ ; } 4 = \boxed{25/12}$ or $2 \frac{1}{12}$

2) $1 \text{ ; } 7 = \boxed{50/7}$ or $7 \frac{1}{7}$

3) $5 \text{ ; } 12 = \boxed{169/60}$ or $2 \frac{49}{60}$

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