Name_____   School_____

CALCULATORS ARE NOT ALLOWED

1. (2 pts) $(-5)(-4)(-3)(-2)(-1) =$

1. _____

2. (3 pts) $\dfrac{0}{-5} + \dfrac{0}{-4} + \dfrac{1}{-3} - \dfrac{1}{-2} - \dfrac{-1}{1} =$

2. _____

3. (5 pts) $\dfrac{(-5) - (-4)}{(-4) - (-5)} - \dfrac{4 - (5)}{-4 - (-5)} =$

3. _____

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CALCULATORS ARE NOT ALLOWED

1. (2pts)   Write $(5.2)^2$ in scientific notation.

1. _____

2. (3pts)   Write $(0.004)^2$ in scientific notation.

2. _____

3. (5pts) $$\frac{10^2 \cdot 100^3 \cdot (0.1)^4}{10^4 \cdot 100^3 \cdot (0.1)^2} = 10^?$$

Find the value of ?   3. _____

JUNIOR DIVISION
Category 2: Statistics

1. (2pts)   This chart shows the hourly wages earned by the principal wage earner in ten families.

Family	A	B	C	D	E	F	G	H	I	J
Hourly Wage	$8.00	$10.00	$20.25	$9.40	$11.00	$13.75	$8.50	$10.50	$9.00	$11.00

What percent of the families have a principle wage earner that makes less than $10.00 per hour?

1. _____

2. (3 pts)   Find the mean, median, and mode for this list of numbers:

1, 1, 1, 2, 2, 3, 3, 3, 3, 4, 5   2. mean _____

median _____

mode _____

3. (5pts)   List seven numbers that satisfy the following conditions:
                The mean is 70, the median is 75, and the modes are 55 and 85.

_____, _____, _____, _____, _____, _____, _____

JUNIOR DIVISION
Category 4: Factorization, LCM, Divisibility and Primes
Team Category (Pass in only one paper)

1. (2pts)   Simplify the fraction: $\dfrac{56}{63}$ 1. _____

2. (3pts)   Find the least common multiple of 15, 20, and 25

2. _____

3. (5pts)   Is 323 a prime number? If so tell why. If not tell why.

YES   or   NO

Reason: _____

_____

_____