Contestant's Number _____

Final _____ _____
2nd _____ _____
1st _____ _____
     Score   **Initials**

Read Directions Carefully   **Do Not Unfold This Sheet**
Before Beginning Test   **Until Told to Begin**

Directions: Do not turn this page until the person conducting this test gives the signal to begin. This is a ten-minute test. There are 80 problems. Solve accurately and quickly as many as you can in the order in which they appear. ALL PROBLEMS ARE TO BE SOLVED MENTALLY. Make no calculations with paper and pencil. Write only the answer in the space provided at the end of each problem. Problems marked with a (*) require approximate integral answers; any answer to a starred problem that is within five percent of the exact answer will be scored correct; all other problems require exact answers.

The person conducting this contest should explain these directions to the contestants.
Stop – Wait for Signal!

(1) $28 + 41 =$ _____

(2) $65 - 22 =$ _____

(3) $613 - 316 =$ _____

(4) $14 \times 5 =$ _____

(5) $9 \times 12 =$ _____

(6) $7 + 21 - 8 =$ _____

(7) $108 \div 9 =$ _____

(8) Which digit is in the tens place in

201837.6495 ? _____

(9) $5 \times 6 \times 4 =$ _____

*(10) $2901 + 2180 + 9 =$ _____

(11) $535 \div 5 =$ _____

(12) 76231.05882 rounded to the hundreds place is

_____

(13) $16 \times 21 + 4 \times 16 =$ _____

(14) MMXIX = _____ (Arabic numeral)

(15) $37 \times 77 =$ _____

(16) $12 \times 18 =$ _____

(17) $15 \times 22 =$ _____

(18) $8 \times 10^3 + 6 \times 10^1 + 7 \times 10^{-1} =$ _____ (decimal)

(19) $5792 \div 9$ has a remainder of _____

*(20) $6982 \times 143 =$ _____

(21) $15 - 12 \div 3 =$ _____

(22) $\dfrac{2}{15} + \dfrac{4}{15} =$ _____ (common fraction)

(23) $2\dfrac{1}{4}$ days = _____ hours

(24) $25 \times 42 =$ _____

(25) $\dfrac{8}{5} =$ _____ (decimal)

(26) Which is smaller: $\dfrac{6}{7}$ or $\dfrac{7}{8}$? _____

(27) $11 \times 93 =$ _____

(28) 48 percent = _____ (common fraction)

(29) The smallest prime number greater than 13 is _____

*(30) $333 \times 269 + 13 =$ _____

(31) $7.5 \% =$ _____ (common fraction)

(32) The smallest prime number that can divide evenly

into 105 is _____

(33) $11 \times 776 =$ _____

(34) $\dfrac{8}{10} \div \dfrac{40}{1000} =$ _____

(35) Ten is to six as n is to three. n = _____

(36) If 4 ♥ cost 25¢, then 12 ♥ cost _____ ¢

(37) The least common multiple of 18 and 24 is _____

(38) $\dfrac{7}{24} + \dfrac{11}{24} =$ _____ (common fraction)

(39) $(18 \times 29 - 85) \div 4$ has a remainder of _____

*(40) $45\dfrac{5}{11} \times 3298 =$ _____

(41) $\dfrac{5}{12} + \dfrac{1}{4} =$ _____ (common fraction)

(42) A number, n, added to 15 equals 33. What is n?

_____

(43) If $x = 7$, then $11 + 4x =$ _____

(44) What is the perimeter of an isosceles triangle with congruent sides 16 and the other side 20? _____

(45) 108 inches = _____ yards

(46) $4\dfrac{1}{6} \times 8\dfrac{1}{6} =$ _____ (mixed number)

(47) What is the number, k, in the sequence:

1, 8, 27, k, 125, . . .? _____

(48) $17^2 =$ _____

(49) 123 (Base 5) = _____ Base 10

*(50) $15^2 \times 2490 =$ _____

(51) $8 \times \dfrac{9}{10} =$ _____ (mixed number)

(52) $9\dfrac{5}{6} - 4\dfrac{2}{3} =$ _____ (mixed number)

(53) $102 \times 103 =$ _____

(54) If set A = {L, O, N, G, V, I, E, W} and set B = {T, E, X, A, S}, then the number of elements in A $\cup$ B is _____

(55) If five times a number less 16 is the same as 34, then the number is _____

(56) The perimeter of a square with side 3.75 is _____

(57) $61 \times 69 =$ _____

(58) For a right triangle, if the length of a hypotenuse is 26 and one leg is 10, then the other leg is_____

(59) If the circumference of a circle is 16π, then the area of the circle is $k\pi$, and $k =$ _____

*(60) $375 \times 1199 =$ _____

(61) $(-6) - (-6) \times (-3) =$ _____

(62) $3^3 + 4^3 \div 2^3 =$ _____

(63) The additive inverse of $-\dfrac{12}{5}$ is _____

(64) The number of vertices in a cube is _____

(65) If $9^2 + x^2 = 97$ and $x > 0$, then $x =$ _____

(66) If a pair of dice are thrown, the probability that the sum of the dice equals 11 is _____

(67) What is the area of a parallelogram with base 12 and with altitude $12\dfrac{1}{2}$? _____

(68) $\sqrt{72900} =$ _____

(69) 54 (Base 8) = _____ (Base 2)

*(70) $649^2 =$ _____

(71) $24 \times 3\dfrac{1}{4} =$ _____

(72) What is the area of a rhombus with diagonals $7\dfrac{1}{2}$ and 4? _____

(73) $20^2 - 16^2 = 4k$ and $k =$ _____

(74) If $12 - 5x > 37$, then $x <$ _____

(75) $71^2 =$ _____

(76) If a black bag contains 4 red, 6 blue and 10 green marbles, what is the probability of drawing a single green marble? _____

(77) $22\dfrac{2}{9}$ % of 36 is _____

(78) What is the distance from negative 18 to positive 43 on the number line? _____

(79) $(1.2)^2 + (3.6)^2 =$ _____

*(80) $49 \times 50 \times 51 =$ _____

2018 – 2019 University Interscholastic League Elementary Number Sense Test C – Key

(1) 69

(2) 43

(3) 297

(4) 70

(5) 108

(6) 20

(7) 12

(8) 3

(9) 120

*(10) 4836 – 5344

(11) 107

(12) 76200

(13) 400

(14) 2019

(15) 2849

(16) 216

(17) 330

(18) 8060.7

(19) 5

*(20) 948505 – 1048347

(21) 11

(22) $\dfrac{2}{5}$

(23) 54

(24) 1050

(25) 1.6

(26) $\dfrac{6}{7}$

(27) 1023

(28) $\dfrac{12}{25}$

(29) 17

*(30) 85111 – 94069

(31) $\dfrac{3}{40}$

(32) 3

(33) 8536

(34) 20

(35) 5

(36) 75

(37) 72

(38) $\dfrac{3}{4}$

(39) 1

*(40) 142414 – 157404

(41) $\dfrac{2}{3}$

(42) 18

(43) 39

(44) 52

(45) 3

(46) $34\dfrac{1}{36}$

(47) 64

(48) 289

(49) 38

*(50) 532238 – 588262

(51) $7\dfrac{1}{5}$

(52) $5\dfrac{1}{6}$

(53) 10506

(54) 12

(55) 10

(56) 15

(57) 4209

(58) 24

(59) 64

*(60) 427144 – 472106

(61) -24

(62) 35

(63) $\dfrac{12}{5}$; $2\dfrac{2}{5}$; 2.4

(64) 8

(65) 4

(66) $\dfrac{1}{18}$

(67) 150

(68) 270

(69) 101100

*(70) 400141 – 442261

(71) 78

(72) 15

(73) 36

(74) -5

(75) 5041

(76) $\dfrac{1}{2}$; .5

(77) 8

(78) 61

(79) 14.4; $14\dfrac{2}{5}$; $\dfrac{72}{5}$

*(80) 118703 – 131197

Note: *(Number)   x – y means an integer between x and y inclusive.
If an answer is of the type like 2/3 it cannot be written as .666… or $.\overline{6}$.