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) $42 + 43 =$ _____

(2) $5 + 13 + 55 =$ _____

(3) $78 - 35 =$ _____

(4) $8 \times 12 =$ _____

(5) $64 \div 4 =$ _____

(6) $XLV =$ _____ Arabic Number

(7) $17 + 3 + 6 + 14 =$ _____

(8) $25 \times 12 =$ _____

(9) $75 \times 24 =$ _____

*(10) $18 + 92 + 803 =$ _____

(11) $78 \times 11 =$ _____

(12) $835 \div 9$ has a remainder of _____

(13) $18 \times 12 =$ _____

(14) $104 \times 105 =$ _____

(15) $1 + 3 + 5 + 7 + \ldots + 11 =$ _____

(16) $2842 \div 14 =$ _____

(17) $28 \times 32 =$ _____

(18) $705 - 56 - 24 =$ _____

(19) $16 + 32 + 48 =$ _____

*(20) $6005 + 6899 + 606 =$ _____

(21)   The largest prime number less than 100 is _____

(22) $75 \times 55 =$ _____

(23)   30 quarts = _____ pints

(24) $96\% =$ _____ (fraction)

(25) $3.19 - 1.58 =$ _____ (decimal)

(26)   76520 decimeters _____ decameters

(27)   Which is smaller $\dfrac{8}{9}$ or $\dfrac{11}{12}$? _____

(28)   How many positive integers evenly divide into 24?

_____

(29) $0.36 \div 0.5 =$ _____ (decimal)

*(30) $334 \times 479 =$ _____

(31)   275 ¢ = _____ nickels

(32)   If 4 pencils cost 96 ¢, then a dozen pencils cost

$ _____

(33) $12 - 8 \div 2 =$ _____

(34)   The greatest common factor of 48 and 32 is _____

(35)   What is the ratio of quarters to dimes in $4.50?

_____

(36) $\dfrac{17}{20} =$ _____ decimal

(37) $\dfrac{13}{16} - \dfrac{7}{16} =$ _____ fraction

(38) $83 \times 101 =$ _____

(39) $0.475 =$ _____ %

(40)* $876 \times 319 =$ _____

(41) $\dfrac{7}{15} - \dfrac{1}{6} =$ _____ (fraction)

(42) If $A = 2$, $B = 8$ and $C = 14$, then $\dfrac{4B - C}{A} =$ _____

(43) $\dfrac{4}{9} \div \dfrac{5}{6} =$ _____ (fraction)

(44) The next number in the series 1, 4, 9, 16, . . is _____

(45) $17^2 =$ _____

(46) $\dfrac{4}{7} + \dfrac{7}{4} =$ _____ (Mixed number)

(47) What is the volume of a solid rectangular box that measures 4' × 5' × 6'? _____ ft^3

(48) $4\dfrac{1}{4} \times 8\dfrac{1}{4} =$ _____ (Mixed number)

(49) 23 (base 6) + 43 (base 6) = _____ (base 6)

(50)* $167 \times 3610 =$ _____

(51) If 1.06 liters equal 1 quart, then 2 gallons = _____ L

(52) What is the perimeter of a regular hexagon with side measuring 3½ meters? _____ m

(53) What is the power set for the set {A, U, S, T, I, N}?

_____

(54) $202 \times 46 =$ _____

(55) What is the diameter of a circle with an area of 144π square meters? _____ m

(56) 160 acres = _____ square miles

(57) If one leg of a right triangle is 8 cm and the hypotenuse is 10 cm then the other leg is _____ cm

(58) $\sqrt{361} =$ _____

(59) $\dfrac{1}{3} + \dfrac{1}{4} + \dfrac{1}{5} =$ _____ (fraction)

(60)* $12^4 =$ _____

(61) $41^2 =$ _____

(62) The area of a triangle with base 25 and altitude 48 cm is _____ cm^2

(63) If the congruent angles of an isosceles triangle are 58°, then the third angle is _____ °

(64) $(-6) + (-4) \times (-2) =$ _____

(65) What is the probability of rolling a sum of 5 when throwing two dice? _____

(66) What is the smallest integer greater than π? _____

(67) If the area of a rhombus is 200 square feet and one diagonal is 25 feet, then the other diagonal is _____ ft

(68) What is the smallest value of x such that $x + 8 > 40$?

_____

(69) $8^2 + 24^2 =$ _____

(70)* $27 \times 25 \times 11 =$ _____

(71) $5^4 =$ _____

(72) The multiplicative inverse of $3\dfrac{1}{3}$ is _____

(73) $33\dfrac{1}{3}$ percent of $\dfrac{3}{4}$ is = _____

(74) What are the odds of rolling a single die and getting an even number? _____

(75) $26 \times 22 + 24 \times 22 =$ _____

(76) A regular nonagon has _____ sides

(77) The surface area of a sphere with radius 12 meters is _____ $\pi \ cm^2$

(78) The interest on $400 for six months at 6½% is $ _____

(79) $2^2 \times (12\frac{1}{2})^2 =$ _____

(80)* $\sqrt{18224} =$ _____