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) 23 + 13 =

(2) 8 × 12 =

(3) 79 − 26 =

(4) 42 ÷ 6 =

(5) Which digit represents the hundreds place in 4260.135?

(6) 25 × 12 =

(7) What is 735.178 rounded to the ten’s place?

(8) 23 × 11 =

(9) 3 + 5 + 7 =

*(10) 43 + 102 + 989 =

(11) 79 + 63 =

(12) 641 − 372 =

(13) 44 × 50 =

(14) What is the remainder for 731 ÷ 5?

(15) 6 × 10^1 + 5 × 10^0 + 4 × 10^{-1} =

(16) 12 × 26 =

(17) LIV =

(18) 22 × 23 =

(19) 8 + 23 + 12 =

*(20) 21 × 149 =

(21) CCIV + CL =

(22) \frac{4}{7} + \frac{1}{7} =

(23) The largest prime number less than 50 is

(24) \frac{11}{12} - \frac{3}{12} =

(25) 3.2 + 1.8 =

(26) Which is smaller 0.33 or \frac{1}{3} ? =

(27) 4.5 ÷ 15 =

(28) 12 + 6 ÷ 3 =

(29) 101 × 16 =

*(30) 62.5 × 159 =

(31) 8 is to 15 as 24 is to

(32) 12 apples at 25¢ each is

(33) 87 ½ percent =

(34) 1.5 × 3.5 =

(35) The greatest common denominator of 48 and 28 is

(36) 12 yards =

(37) 3 quarts =

(38) 2.4 + 1.2 × 3 =
(39) The least common multiple of 24 and 16 is ________

*(40) 111 \times 359 = ____________________________

(41) 3^3 = ____________________________

(42) If 4x – 5 = 35, then x = ____________________________

(43) \frac{11}{12} + \frac{4}{3} = ____________________________ (fraction)

(44) What is the radius of a circle with a circumference of 24\pi? ____________________________

(45) What is 2x + 5 equal to if x = .5? ____________________________

(46) If a square has an area of 9, then its perimeter is ____________________________

(47) What is the next number in the sequence 1, 8, 27, ...? ____________________________

(48) 203 (base 5) = ____________________________ (base 10)

(49) 2(2007) + 2007 = ____________________________

*(50) \sqrt{93025} = ____________________________

(51) 97 \times 96 = ____________________________

(52) What is the area of a triangle with a base of 9 and a height of 16? ____________________________

(53) What is the hypotenuse for a right triangle with legs 5 and 12? ____________________________

(54) \frac{4\frac{1}{4}}{4} = ____________________________ (Mixed number)

(55) \frac{3\frac{2}{3}}{3} = ____________________________ (Mixed number)

(56) \frac{5\frac{1}{4} - 3\frac{5}{6}}{4} = ____________________________ (Mixed number)

(57) If A = \{0,2,4,...,10\} and B = \{prime numbers less than ten\}, then A \cap B = \{ ____________________________\}

(58) 38 \times 32 = ____________________________

(59) 15 percent of 25 is ____________________________ (decimal)

*(60) \frac{5}{9} \times 405 = ____________________________

(61) (-24) \times (-15) = ____________________________

(62) The multiplicative inverse of \frac{2}{3} is ____________________________

(63) A hexagon has ____________________________ sides.

(64) 44^2 = ____________________________

(65) -24 + (-16) \div (-2) = ____________________________

(66) The surface area of a cube with edge of 4 is __________

(67) 143 \times 14 = ____________________________

(68) 44 \times 46 = ____________________________

(69) The complementary angle of 43° is __________°

*(70) 374 \times 400 = ____________________________

(71) The area of a trapezoid with bases 24 and 20 and height 12 is ____________________________

(72) 105 \times 108 = ____________________________

(73) What is the largest integer such that 2n < 12? __________

(74) If you roll a pair of dice, what is the probability that the sum will equal 11? ____________________________

(75) 15^2 + 45^2 = ____________________________

(76) 45^2 - 15^2 = ____________________________

(77) 5 is ____________________________ percent more than 4.

(78) \frac{15 \times \frac{15}{17}}{17} = ____________________________ (Mixed number)

(79) If 4 pencils cost 89¢, then 2 dozen pencils cost $ ____________________________

*(80) 72 \times 68 + 69 \times 71 = ____________________________