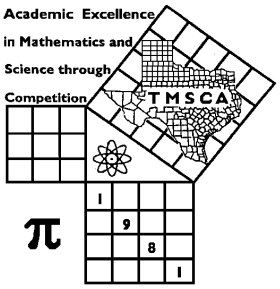
1st Score: _____ Grader: _____	2nd Score: _____ Grader: _____	3rd Score: _____ Grader: _____	**Final Score**

PLACE LABEL BELOW

Name:_____ School:_____

SS/ID Number:_____ City:_____

Grade: 4 5 6 7 8 Classification: 1A 2A 3A 4A 5A 6A



TMSCA MIDDLE SCHOOL NUMBER SENSE KICK-OFF TEST ©

2020

GENERAL DIRECTIONS

1. Write only the requested information on this coversheet. Do not make any additional marks on this cover sheet.
2. You will be given 10 minutes to take this test.
3. There are 80 problems on the test.
4. Write in ink only! It would be advantageous to use non-black ink.
5. Solve as many problems as you can in the order that they appear.
6. Problems that are skipped are considered wrong.
7. Problems that appear after the last attempted problem do not count either for or against you.
8. ALL PROBLEMS ARE TO BE SOLVED MENTALLY! [No scratch work!]
9. Only the answer may be written in the answer blank.
10. Starred [*] problems require approximate INTEGRAL answers that are within 5% of the exact answers. All other problems require exact answers.
11. All problems answered correctly are worth FIVE points. FOUR points will be deducted for all problems answered incorrectly or skipped before the last problem attempted.

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2020-2021 TMSCA Middle School Number Sense Kick Off Test

(1) $844 + 156 =$ _____

(2) $336 - 225 =$ _____

(3) $96\% =$ _____ (fraction)

(4) $735 \div 7 =$ _____

(5) $88 \times 25 =$ _____

(6) $6.2 - 4.85 =$ _____ (decimal)

(7) $1\frac{1}{8} =$ _____ (decimal)

(8) $16^2 =$ _____

(9) $14 \times 12 + 12 \times 6 =$ _____

***(10)** $1466 + 424 + 51 =$ _____

(11) $27 \times 87 =$ _____

(12) 450 is _____ % of 500?

(13) $96 \times 94 =$ _____

(14) $3\frac{1}{2} + 2\frac{2}{3} =$ _____ (mixed number)

(15) $106 \times 108 =$ _____

(16) $7\frac{2}{5} \times 5\frac{3}{7} =$ _____ (mixed number)

(17) The GCD of 36 and 63 is _____

(18) $20 + 25 + 30 + 35 + 40 =$ _____

(19) $74 \times 76 =$ _____

***(20)** $73562 \div 35 =$ _____

(21) $6 + |15 - 9| + |3 - 9| =$ _____

(22) The sum of the prime numbers between 0 and 10 is _____

(23) $8^3 =$ _____

(24) $\frac{9}{8} - \frac{8}{9} =$ _____

(25) $794 \times 11 =$ _____

(26) 0.242424… _____ (fraction)

(27) 1 yd + 2 ft + 3 in = _____ in

(28) 212 base 6 = _____ base 10

(29) $58 \times 62 =$ _____

***(30)** $\sqrt{224571} =$ _____

(31) An octagon has _____ sides

(32) $6\frac{1}{4} \times 6\frac{3}{4} =$ _____ (mixed number)

(33) If the perimeter of a square is 36 cm, then the area is _____ cm^2

34) The additive inverse of 0.777… is _____

(35) $82^2 + 12^2 =$ _____

(36) If Ben has \$6.25 in quarters, then he has _____ quarters

(37) If 3 pens cost \$3.21, then 9 pens cost \$_____

(38) $19^2 + 57^2 =$ _____

(39) 15% of 39 is 45% of _____

***(40)** $488 \times 316 =$ _____

(41) $37^2 - 33^2 =$ _____

(42) $35°\,C =$ _____ $°\,F$

(43) $453_8 =$ _____$_2$

(44) 15% of $433\frac{1}{3} =$ _____

(45) $\frac{1}{3}$ of a gallon = _____ in^3

(46) $222 \times \frac{15}{37} =$ _____

(47) If $6x + 5 = 47$, then $x^2 =$ _____

(48) $998 \times 996 =$ _____

(49) The smaller root of $(3x+1)^2 = \frac{1}{4}$ is _____

***(50)** $\sqrt[3]{351228} =$ _____

(51) How many positive integers less than 39 are relatively prime to 39? _____

(52) The reciprocal of -2.4 is _____

(53) $0.2333\ldots =$ _____ (fraction)

(54) $452613 \div 11$ has a remainder of _____

(55) If $(9x+7)^2 = ax^2 + bx + c$, then $a + b + c =$ ____

(56) $75 \times 95 =$ _____

(57) $4^{-3} + 4^{-2} + 4^{-1} =$ _____

(58) 3 quarts + 3 cups = _____ ounces

(59) The largest negative integral value of x such that $|x + 3| > 4$ is _____

***(60)** $\sqrt{404} \times \sqrt{606} =$ _____

(61) 15 mph = _____ ft/s

(62) $(564_7) \times (6_7) =$ _____$_7$

(63) Two dice are rolled. The probability that the sum is 4 or 10 is _____

(64) $11 \times \frac{13}{15} =$ _____ (mixed number)

(65) The simple interest on \$1200 at a rate of 5% for 18 months is \$_____

(66) $\frac{2}{5} + \frac{2}{25} + \frac{2}{125} =$ _____

(67) If $f(x) = \frac{9x-6}{3} - 12$, then $f^{-1}(4) =$ _____

(68) If $f(x) = 2x^2 - 4x + 10$, then $f(5) =$ _____

(69) The first 4 digits of the decimal for $\frac{25}{33}$ is 0._____

***(70)** $8 \times 16 \times 24 =$ _____

(71) The distance between the points (5, 9) and (–2, 2) is k. $k^2 =$ _____

(72) If $g(x) = x^2 - 4$, then $g(g(3)) =$ _____

(73) $4 + 8 + 12 + 16 + \ldots + 52 =$ _____

(74) If $6^x = 12$, then $6^{x-2} =$ _____

(75) $\frac{1}{15} + \frac{1}{35} + \frac{1}{63} =$ _____

(76) The volume of a cone with a diameter of 18 cm and a height of 12 cm is _____ π cm^3

(77) $5 + 1 + 6 + 7 + 13 + \ldots + 139 + 225 =$ _____

(78) $(3)(7)(8)(13)(37) =$ _____

(79) The smallest angle formed by the hands of a clock at 3:30 is _____°

***(80)** $3\frac{2}{7} \times 6487 \div 3 =$ _____

2020-2021 TMSCA MSNS Kick Off Key

(1) 1000

(2) 111

(3) $\frac{24}{25}$

(4) 105

(5) 2200

(6) 1.35

(7) 1.125

(8) 256

(9) 240

***(10)** $1844-2038$

(11) 2349

(12) 90

(13) 9024

(14) $6\frac{1}{6}$

(15) 11448

(16) $40\frac{6}{35}$

(17) 9

(18) 150

(19) 5624

***(20)** $1997-2206$

(21) 18

(22) 17

(23) 512

(24) $\frac{17}{72}$

(25) 8734

(26) $\frac{8}{33}$

(27) 63

(28) 80

(29) 3596

***(30)** $451-497$

(31) 8

(32) $42\frac{3}{16}$

(33) 81

(34) $-\frac{7}{9}$

(35) 6868

(36) 25

(37) 9.63

(38) 3610

(39) 13

***(40)**146498-161918

(41) 280

(42) 95

(43) 100101011

(44) 65

(45) 77

(46) 90

(47) 49

(48) 994008

(49) $-\frac{1}{2}$ or $-.5$

***(50)** $68-74$

(51) 24

(52) $-\frac{5}{12}$

(53) $\frac{7}{30}$

(54) 7

(55) 256

(56) 7125

(57) $\frac{21}{64}$

(58) 120

(59) –8

***(60)** $471-519$

(61) 22

(62) 5043

(63) $\frac{1}{6}$

(64) $9\frac{8}{15}$

(65) 90.00

(66) $\frac{62}{125}$

(67) 6

(68) 40

(69) 7575

***(70)** $2919-3225$

(71) 98

(72) 21

(73) 364

(74) $\frac{1}{3}$

(75) $\frac{1}{9}$

(76) 324

(77) 588

(78) 80808

(79) 75

***(80)** $6750-7460$