Middle School Number Sense Exam 033, 1/19/2018

(1) $2999 + 3998 =$ _____

(2) $28 \times (4^2 - 1) \div 7 =$ _____

(3) $9 \times (3^2 - 1) \div 4 =$ _____

(4) $573 + 357 =$ _____

(5) $\frac{9}{25} =$ _____

(6) $49021 \div 7 =$ _____

(7) $12 \times (3^2 - 1) \div 4 =$ _____

(8) $\frac{29}{50} =$ _____ %

(9) $963 \div 9 =$ _____

*(10) $94 + 168 + 2145 + 13192 =$ _____

(11) $500 \div .05 =$ _____

(12) $27 \times 87 =$ _____

(13) $18 \div 4\frac{1}{2} =$ _____

(14) $2016 + 201.6 + 20.16 =$ _____ (decimal)

(15) $33\frac{1}{3} \times 66 =$ _____

(16) $6\frac{5}{9} + 2\frac{2}{3} =$ _____

(17) $32 \times 75 =$ _____

(18) $79 \times 39 =$ _____

(19) $1748 \times 50 =$ _____

*(20) $667 \times 605 =$ _____

(21) $404 \times 16 =$ _____

(22) $400 \div .02 =$ _____

(23) 42% of 19 is 14% of _____

(24) .02 Dekameters = _____ meters

(25) $(-6)(-9) - 43 =$ _____

(26) $88 \times 75 =$ _____

(27) 195 has _____ unique prime factors

(28) $16^2 =$ _____

(29) $125 \times 2.4 =$ _____

*(30) $8^3 + 10^3 + 12^3 =$ _____

(31) $2^6 \times 5^4 =$ _____

(32) $11\frac{7}{11} \times 11 =$ _____

(33) If $\frac{5}{x} = \frac{7}{12}$, then $x =$ _____

(34) If $x = 3$ and $y = 7$, then $4x + 6y =$ _____

(35) The multiplicative inverse of 5.3 is _____

(36) $107 \times 108 =$ _____

(37) $12 \times 7\frac{1}{6} =$ _____

(38) $9\frac{3}{5} \times 9\frac{2}{5} =$ _____ (mixed number)

(39) The supplement of a 64° angle is _____ °

*(40) $8862 \div 37 =$ _____

(41) $1 + 3 + 5 + \ldots + 37 + 39 =$ _____

(42) If $f(x) = \frac{15}{x}$, then $f\left(\frac{1}{15}\right) =$ _____

(43) The perimeter of a pentagon with sides of 43 is _____

(44) $\frac{1}{2}$ gallon = _____ pints

(45) If $a = 6, b = .5$, and $c = 8$, then $\frac{a}{b} - c =$ _____

(46) $39 \times 79 =$ _____

(47) $96^2 - 4^2 =$ _____

(48) $(73 - 37) \div 9$ has a remainder of _____

(49) 80 acres = _____ sq. miles

*(50) The number of distinct diagonals in a regular polygon of 100 sides is _____

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

(52) How many distinct diagonals can be drawn in side a 20-sided regular polygon? _____

(53) 1 ounce = _____ cups

(54) $83_9 =$ _____ $_{10}$

(55) The slopde of the line $3y = \frac{1}{3}x + 5$ is _____

(56) $\sqrt[3]{\frac{125}{8}} =$ _____ (mixed number)

(57) $46_8 =$ _____ $_{10}$

(58) If $f(x) = (2x)^2 - 5$, then $f(-4) =$ _____

(59) $16 \times \frac{15}{13} =$ _____ (mixed number)

*(60) $5.5^3 \times 4.5^2 =$ _____

(61) $993 \times 998 =$ _____

(62) $\frac{1}{6} + \frac{1}{12} + \frac{1}{20} =$ _____

(63) $134_5 =$ _____ $_{10}$

(64) $9 + 3 + 1 + \ldots =$ _____

(65) 659 = _____ (Roman Numeral)

(66) The total number of unique diagonals that can be drawn in a dodecagon is _____

(67) 44 feet per second = _____ miles per hour

(68) If $27_b = 25_{10}$, then $b =$ _____

(69) $1021 \times 1004 =$ _____

*(70) $\sqrt{24000} =$ _____

(71) If the hypotenuse of a $30 - 60 - 90$ right triangle is 8 mm, then the short leg is _____ mm

(72) Find the probability of rolling a sum of 8 when rolling two 6-sided die. _____

(73) If $\log_5 x = 3$, then $x =$ _____

(74) $\mathrm{i}^{31} =$ _____

(75) If P and Q are roots of $12x^2 + 13x + y25 = 0$, then $PQ + P + Q =$ _____

(76) $\sqrt{2\frac{7}{9}} =$ _____ (mixed number)

(77) If $9^x = 12$, then $9^{x-1} =$ _____

(78) The area of a rhombus with diagonals 7 cm. and 14 cm. is _____ sq. cm.

(79) $\sqrt{2809} =$ _____

*(80) $8.42^3 =$ _____