Number Sense Exam 067, 9/14/2018

(1) $20.06 + 600.2 =$ _____ (decimal)

(2) $35 \times 13 =$ _____

(3) $25 \times 346 =$ _____

(4) $46 \times 12 =$ _____

(5) $2210 - 1030 =$ _____

(6) $2007 + 207 + 27 =$ _____

(7) $2016 \div 9 =$ _____

(8) $33^2 =$ _____

(9) $7002 + 2007 =$ _____

*(10) $21347 + 1118 + 2947 + 76 =$ _____

(11) $22 \times 16 + 16 \times 38 =$ _____

(12) The LCM of 16, 20, and 32 is _____

(13) $1515 \div 6$ has a remainder of _____

(14) 42% of 42 is _____ (decimal)

(15) $(67 \times 213 + 2002) \div 3$ has a remainder of _____

(16) $.048 =$ _____ (fraction)

(17) Which is larger: .54 or $\frac{6}{11}$? _____

(18) 18% of 22 = _____ (decimal)

(19) $\frac{3}{7} - \frac{3}{14} - \frac{3}{21} =$ _____

*(20) $\sqrt{1243} \times 3421 =$ _____

(21) 1225 minutes = _____ hours

(22) How far will a car travel in 1 hour 20 minutes at a constant rate of 90 mph? _____ miles

(23) $122 \times 16 =$ _____

(24) $97 \times 102 =$ _____

(25) $3 + 5 + 7 + \ldots + 21 + 23 =$ _____

(26) If x is to 25 as 7 is to 10, then $x =$ _____

(27) 9 is to 11 as 4 is to _____

(28) Sue drove 180 miles in 4.5 hours. Her average speed was _____ mph

(29) If $\frac{3}{4} = \frac{3x}{5}$, then $x =$ _____

*(30) $\sqrt{1234} \times 56 =$ _____

(31) Find b when $57_b = 52_{10}$. $b =$ _____

(32) If $3x + 4 = 5$, then $x^2 =$ _____

(33) $625 \times 320 =$ _____

(34) The tax on a $36 book is $2.70. The tax rate is _____ percent

(35) $2^4 + 1 =$ _____ 8

(36) If $a = 5$ and $b = 3$, then $(a - b)(a^2 + ab + b^2) =$ _

(37) $88 \times 97 =$ _____

(38) If $a = -7$ and $b = 2$, then $(a + b)(a^2 - ab + b^2) =$ _____

(39) If $x+(x+5)+(x+10)+(x+15)+\ldots+(x+30) = 385$, then $(x + 15) =$ _____

*(40) $\sqrt{25252} =$ _____

(41) The slope of the line containing the points $(5, 2)$ and $(-3, 4) =$ _____

(42) $\frac{11}{12} - \frac{10}{13} =$ _____

(43) The sum of the roots of $3x^2 + 6x = 9$ is _____

(44) The complex conjugate of $-9 + 4$i is _____

(45) The distance between the points $(1, 3)$ and $(4, 7)$ is _____

(46) The sum of the product of the roots taken two at a time of $2x^3 + 4x^2 - 6x = 8$ is _____

(47) The arithmetic mean of $22, 43$, and 52 is _____

(48) 48% of $833\frac{1}{3}$ is _____

(49) 60 miles per hour = _____ feet per second

*(50) $14^4 \div 6^3 \times 3^2 =$ _____

(51) A die is rolled. What is the probability that a prime number is shown? _____

(52) $11 \times \frac{14}{17} =$ _____ (mixed number)

(53) $3 + 4 + 5 + 6 + \ldots + 20 =$ _____

(54) $\frac{\pi}{180}$ radians = _____ (degrees)

(55) If $\log_{11} x = 3$, then $x =$ _____

(56) The next term of $1, 2, 0, 3, -1, 4, \ldots$ is _____

(57) $555 \times \frac{5}{37} =$ _____

(58) Given that $648 \times 3\frac{3}{4} = 2430$, find 648×11.25. _____

(59) If $\log_5 6 + \log_5 4 = \log_5 x$, then $x =$ _____

*(60) $16^3 \times 8^3 \div 4^3 =$ _____

(61) A bag contains 5 red M's, 4 brown M's, and k green M's. Find k if the probability of randomly drawing a red M is $33\frac{1}{3}\%$. _____

(62) 2.5 circular rotations = _____ degrees

(63) $(314_7)(22_7) \div 6$ has a remainder of _____

(64) $41^3 - 40^3 =$ _____

(65) How much time has passed from 3:45 pm to 11:15 pm the same day? _____ hours

(66) $\ln(e^2)$ _____

(67) $(53_6)(45_6) \div 5$ has a remainder of _____

(68) The area of the circumscribed circle around a $6, 8, 10$-right triangle is $k\pi$. Find k. _____

(69) $\cos(\arccos .4) =$ _____

*(70) $(2\pi^2)^2 =$ _____

(71) $15^2 - 12^2 + 5 =$ _____

(72) If $\tan A = 2.3$, then $\cot A =$ _____ (fraction)

(73) The number of ways that the 100 senators of the US can sit around a circular table is $n!$ with $n =$ _____

(74) $\lim_{x \to -1} \frac{x^3 + 1}{x^2 - 2} =$ _____

(75) If $f(x) = 3x^2 - 5x - 2$, then $f'(-1) =$ _____

(76) The ellipse $2x^2 + y^2 - 4x + 3y + 8 = 0$ has a center point at (h, k) and $h =$ _____

(77) $(3, \frac{\pi}{3})$ are polar coordinates for (x, y). $x =$ _____

(78) The minimum value of $y = 2x^2 + 3$ is _____

(79) $4 \sin\left(\frac{3\pi}{4}\right) \cos\left(\frac{3\pi}{4}\right) =$ _____

*(80) 5432 miles/hour = _____ feet/second