Number Sense Exam 036, 8/17/2017

(1) $\frac{5}{6}+\frac{5}{12}+\frac{5}{20}=$ _____ (fraction)

(2) $\frac{1}{4}+1+\frac{1}{6}=$ _____ (improper fraction)

(3) $1\frac{1}{16}\%=$ _____ (decimal)

(4) $3\frac{3}{5}\%=$ _____ (fraction)

(5) $719+917=$ _____

(6) $1357\times 5=$ _____

(7) $65\times 85=$ _____

(8) $7.26-.89=$ _____ (decimal)

(9) $2.5\times 48=$ _____

*(10) $84+426+47-249=$ _____

(11) $23\times 45=$ _____

(12) $111\times 212=$ _____

(13) $4\frac{5}{6}-2\frac{7}{12}=$ _____ (mixed number)

(14) Which is smaller: $-\frac{3}{7}$ or $-\frac{19}{49}$? _____

(15) CMLXIV = _____ (Arabic Numeral)

(16) $5+7+9+11+13+\ldots+21=$ _____

(17) 48 has _____ positive integral divisors

(18) 2 bushels = _____ pecks

(19) The multiplicative inverse of 11 is _____

*(20) $754214\div 214=$ _____

(21) The additive inverse of 5.2 us _____

(22) 56 has _____ positive integral divisors

(23) $8^2+24^2=$ _____

(24) If 4 pens cost \$1.64, then 2 dozen pens cost \$ ___

(25) The largest palindrome less than 200 is _____

(26) 130 plus 70% of 130 is _____

(27) Find $f(3)$ if $f(x)=9x^2-30x+25$. _____

(28) $21^2-19^2=$ _____

(29) $35\times 85=$ _____

*(30) $14\times 11\times 33=$ _____

(31) If $\sqrt{5-\sqrt{3+\sqrt{x}}}=1$, then $x=$ _____

(32) $101\times 318=$ _____

(33) Change 10111 base 2 to base 4. _____ 4

(34) $324_6=$ _____ 10

(35) $2+4+6+\ldots+20=$ _____

(36) The product of the roots of $7x^2-4x+3=0$ is _____

(37) If $5x+7=6x-2$ then $x=$ _____

(38) $(4^4+3^3\times 2^2)\div 5$ has a remainder of _____

(39) The diagonal of a square is $3\sqrt{5}$ in. The area of the square is _____ square in.

*(40) $31.25\%\times 481\div\frac{1}{16}=$ _____

(41) $20+15+35+50+85+135+220+355=$ ____

(42) $131\times 223=$ _____

(43) $\sqrt{9}\times\sqrt{20}\times\sqrt{5}=$ _____

(44) If $4^{3x}=125$, then $4^{(x+2)}=$ _____

(45) If $8^{2x}=36$, then $8^{(x+1)}=$ _____

(46) $57671\div 101=$ _____

(47) $124\times 142=$ _____

(48) The point $(3, 5)$ is reflected over the x-axis to the point (h, k). Find $h + k$. _____

(49) If $x + y = -2$ and $xy = 5$, then $x^3 + y^3 =$ _____

*(50) $444 \times 33\frac{1}{3} \div 0.444\ldots =$ _____

(51) The 11th term in the sequence $4, 7, 10, 13, \ldots$ is _____

(52) If $(5 + \mathrm{i})^2 = a + b\mathrm{i}$, then $a =$ _____

(53) If $\log_9 k = 2.5$, then $k =$ _____

(54) $65 \times 35 =$ _____

(55) 45 degrees $= \frac{\pi}{k}$ radians. Find k. _____

(56) Y varies directly with X and $Y = 2$ when $X = 6$. Find Y when $X = 1$. _____

(57) $444 \times \frac{4}{37} =$ _____

(58) $(5 - 7\mathrm{i})(5 + 7\mathrm{i}) = a + b\mathrm{i}$. Find $a + b$ _____

(59) $108 \times 107 =$ _____

*(60) $6\frac{1}{4}$ radians = _____ degrees

(61) 50 is 6.25% of _____

(62) $\sqrt{14641} =$ _____

(63) $\frac{5}{6} + 1.2 - 2 =$ _____

(64) $111 \times 56 =$ _____

(65) $f(x) = 5x^3 + 4x^2 + 3x - 2$ divided by $x + 1$ has a remainder of _____

(66) $44_8 \times 4_8 =$ _____ $_8$

(67) The simplified sum of the coefficients of the expansion of $(4x + 3y)^3 =$ _____

(68) If the initial point of a vector is $(2, 3)$ and the terminal point is $(4, 5)$, then $||v||^2 =$ _____

(69) $106 \times 107 =$ _____

*(70) $428571 \times 217 =$ _____

(71) $0.2353535\ldots_6 =$ _____ $_6$ (proper fraction)

(72) If $f(x) = x^4 + x^2 - x$, then $f''(-3) =$ _____

(73) The polar coordinates of the rectangular coordinates $(1, \sqrt{3})$ are $(r, k\pi)$. $r =$ _____

(74) $2(1!) + 3(2!) + 4(3!) + 5(4!) + 6(5!) =$ _____

(75) $111 \times 27 =$ _____

(76) Change $.33_5$ to a base 10 fraction. _____

(77) If $f(x) = 2x^2 - 3$, then $3f'(4) =$ _____

(78) A number is randomly drawn from the set $\{1, 2, 3, 4, 5, 6, 7, 8, 9\}$. What are the odds that the number drawn is an odd number? _____

(79) If $g(x) = 2x^2 - 3x + 1$, then $g'(2) =$ _____

*(80) 3.75 square miles = _____ acres