

Number Sense Exam 043, 9/26/17

- (1) $3.4 + 2\frac{3}{10} - 1 =$ _____ (decimal)
- (2) $21 \times 12 =$ _____
- (3) $\frac{11}{40} =$ _____ (decimal)
- (4) $18^2 =$ _____
- (5) The GCD of 68 and 85 is _____
- (6) $2013 - 201 + 13 =$ _____
- (7) Which is larger: $\frac{8}{9}$ or $\frac{11}{13}$? _____
- (8) $456 + 654 =$ _____
- (9) $24 \div 4 \times 3 - 12 =$ _____
- *(10) $9876 - 543 + 345 - 6789 =$ _____
- (11) MCDLXIV = _____ (Arabic Numeral)
- (12) $19 \div 2\frac{1}{2} =$ _____ (decimal)
- (13) CCCXIX = _____ (Arabic Numeral)
- (14) 3.2 is what percent of 25? _____ %
- (15) The additive inverse of $|-5|$ is _____
- (16) The mean of 36, 18, and 42 is _____
- (17) 2.4 is what % of 60? _____ %
- (18) 16 is what % of 40? _____
- (19) 7 is 35% of _____
- *(20) $143 \times 69 =$ _____
- (21) $200_5 =$ _____ $_{10}$
- (22) $15 \times 25 \times 36 =$ _____
- (23) 200 base 10 equals _____ base 7
- (24) $73 \times \frac{73}{75} =$ _____ (mixed number)
- (25) $32 \times 28 + 5 =$ _____
- (26) The LCM of 32 and 72 is _____
- (27) $8\frac{2}{3} \times 8\frac{1}{3} =$ _____ (mixed number)
- (28) $1815 \div 15 =$ _____
- (29) If $2x + 5 = 5x - 7$, then $4x + 3 =$ _____
- *(30) $63 \times 55 + 47 \times 55 =$ _____
- (31) The sum of the prime integers between 11 and 20 is _____
- (32) If 4 apples cost \$2.36 then 10 apples cost \$ _____
- (33) Find the units digit of 13^8 . _____
- (34) $f(x) = 9x^2 + 12x + 4$, evaluate $f(2)$. _____
- (35) The number of positive integral divisors of 404 is _____
- (36) A ticket costs \$5.75. 12 tickets costs \$ _____
- (37) $2345 \times 16 =$ _____
- (38) $\sqrt{248 \times 18} =$ _____
- (39) The product of the roots of $4x^3 - 3x^2 + 2x - 1 = 0$ is _____
- *(40) $\sqrt{5102123} =$ _____
- (41) The cube root of 74088 is _____
- (42) If $2^{2x} \times 7^x = 784$, then $x =$ _____
- (43) $\frac{1}{4}(28^2 - 4^2) =$ _____
- (44) $\left(\frac{5}{9} + \frac{9}{5}\right) \times \frac{1}{2} =$ _____ (mixed number)
- (45) $369 \times 101 =$ _____
- (46) The first 3 digits of the decimal of $\frac{23}{90}$ is 0. _____
- (47) $3^x = 9.17$, then $3^{x+1} =$ _____

- (48) The measure of the interior angles of a regular hexagon is $k\pi$ radians. $k =$ _____
- (49) $14443 \times 29 =$ _____
- *(50) $81^2 + 64^2 + 49^2 =$ _____
- (51) $126 \times 214 =$ _____
- (52) $\log_5 \sqrt{125} =$ _____
- (53) The coefficient of the third term of the expansion of $(x + 3y)^5$ is _____
- (54) ${}_6C_4 \div {}_6C_2 =$ _____
- (55) The point $(-2, 3)$ is reflected across the line $x = 3$ to the point (h, k) _____
- (56) The least value of k such that ${}_4P_k = 24$ is _____
- (57) The simplified coefficient of the third term in the expansion of $(2x + y)^6$ is? _____
- (58) If $3^x = 1.2$ then $9^x =$ _____
- (59) If $3 \log_x 4 = 2$, then $x =$ _____
- *(60) $3192016 \div 765 =$ _____
- (61) The distance between the line $3x + 4y = 1$ and the point $(-2, 2)$ is _____
- (62) $666 \times \frac{2}{37} =$ _____
- (63) $\det \begin{bmatrix} 1 & 3 \\ 2 & 4 \end{bmatrix} =$ _____
- (64) $2 \sin 15^\circ \sin 75^\circ =$ _____
- (65) $4^1 - 4^0 + 4^{-1} - 4^{-2} + \dots =$ _____
- (66) $(87_{11})(79_{11}) \div 10$ has a remainder of _____
- (67) The volume of a right circular cylinder 11 cm high with a diameter of 22 cm is _____ $\pi \text{ cm}^2$
- (68) $2[\cos(30^\circ)(\cos(30^\circ)) - 1] =$ _____
- (69) $106 \times 107 =$ _____
- *(70) $428571 \times 217 =$ _____
- (71) $\int_{-1}^1 x^2 dx =$ _____
- (72) $57289 \div 11$ has a remainder of _____
- (73) $444 \times \frac{4}{37} =$ _____
- (74) $8^5 \div 6$ has a remainder of _____
- (75) $\int_0^2 (3x + 2) dx =$ _____
- (76) If $f(x) = \frac{3x - 1}{2x + 1}$, then $f'(1) =$ _____
- (77) Change 0.31 base 4 to a base 10 fraction. _____
- (78) Change .33 base 4 to a base 10 fraction. _____
- (79) $\int_0^2 x^3 dx =$ _____
- *(80) The simple interest on \$3750 at 2.5% for 1.25 years is _____ dollars (integer)