

Number Sense Exam 069, 10/9/2018

- (1) $2 + 3 \times 5 - 7 =$ _____
- (2) $404 \div 25 =$ _____ (mixed number)
- (3) $2016 - 738 =$ _____
- (4) $\frac{11}{10} + \frac{10}{11} =$ _____ (mixed number)
- (5) $343 \div 9 =$ _____ (mixed number)
- (6) $1.3 + 2.6 + 3.6 =$ _____
- (7) $9002 - 2010 =$ _____
- (8) $25 \times 93 =$ _____
- (9) $123 \times 9 + 3 =$ _____
- *(10) $51 \times 551 - 5511 =$ _____
- (11) If 6 poles cost \$2.36 then 24 poles cost \$ _____
- (12) 40% of 42 less 38 is _____
- (13) $4^0 + 4^{-1} + 4^{-2} =$ _____
- (14) $11 + 12 - 13 - 9 + 10 + 11 =$ _____
- (15) If 6 oranges cost \$1.32 then 11 oranges cost \$ _____
- (16) 128 ounces = _____ cups
- (17) The GCD of 12, 24, and 42 is _____
- (18) $\frac{15}{22} \times 15 =$ _____ (mixed number)
- (19) $\{x \mid 40 < x < 50, x \in \{\text{Composites}\}\}$ contains how many elements? _____
- *(20) $64665 \div 298 =$ _____
- (21) $.2353535 \dots =$ _____ (proper fraction)
- (22) Set A has 4 elements, set B has 7 elements, and $A \cap B$ has 3 elements, then $A \cup B$ has _____ elements
- (23) $(26 \times 24 - 22) \div 7$ has a remainder of _____
- (24) $24^2 + 72^2 =$ _____
- (25) $(13^2 \times 7 + 4) \div 6$ has a remainder of _____
- (26) $32 \times 28 + 5 =$ _____
- (27) How many integers between 12 and 60 are divisible by 7? _____
- (28) $2.151515 \dots =$ _____ (improper fraction)
- (29) $8\frac{1}{4} \times 4\frac{1}{4} =$ _____ (mixed number)
- *(30) 83% of 667 = _____
- (31) If $3x + 5 = 1$, then $6x - 1 =$ _____
- (32) $1101011_2 =$ _____ ₈
- (33) $7! \div 5! + 4! \div 2! =$ _____
- (34) The sum of the roots of $x^2 + x = 20$ is _____
- (35) Let $A = \{l, y, n, d, a\}$ and $B = \{d, o, y, c, e\}$, then $A \cup B$ has how many elements? _____
- (36) $.5757 \dots =$ _____ (fraction)
- (37) $|6 - |-3 - 6|| =$ _____
- (38) $3\frac{1}{3} \div 1\frac{2}{3} =$ _____
- (39) $2^6 + 2^3 + 2 =$ _____ base 8
- *(40) $\sqrt{20164} =$ _____
- (41) If a triangle has sides of 12, 9, and x , then $x <$ _____
- (42) The harmonic mean of 2 and 8 is _____
- (43) The point $(3, 5)$ is reflected over the x -axis to the point (h, k) . Find $h + k$. _____
- (44) $48^2 - 42^2 =$ _____

- (45) If the area of an equilateral triangle is $9\sqrt{3}$ sq. cm., then its side length is _____ cm.
- (46) The number of positive integral divisors of 108 is _____
- (47) $67 \times 47 =$ _____
- (48) The units digit of $13^7 =$ _____
- (49) $26 \times 36 =$ _____
- *(50) $719 \times 875 =$ _____
- (51) The smaller root of $5x^2 - 7x - 6 = 0$ is _____
- (52) The expansion of $(2x - y)^5$ has _____ terms
- (53) The point $(-2, 3)$ is reflected across the line $x = 3$ to the point (h, k) _____
- (54) $202 \times 53 =$ _____
- (55) $({}_5C_5)({}_5P_5) =$ _____
- (56) $\frac{2}{3} + \frac{1}{2} + \frac{3}{8} + \dots =$ _____
- (57) $5^5 \times 2^2 =$ _____
- (58) $126 \times 214 =$ _____
- (59) How many ordered pairs are in the Cartesian product of $\{1, 2, 3\}$ and $\{4, 5\}$? _____
- *(60) $3192016 \div 765 =$ _____
- (61) An acute triangle has integer sides of 2, 7, and x . The largest value of x is _____
- (62) The surface area of a sphere with radius 4 is $k\pi$ and $k =$ _____
- (63) $1 + 2 + 5 + 13 + \dots + 89 + 233 =$ _____
- (64) If $x > 0$ and $x^2 = \sqrt{x^3 + x^3 + x^3}$, then $x =$ _____
- (65) The determinant of $\begin{bmatrix} 5 & 6 \\ a & 8 \end{bmatrix}$ is 9. Find a . _____
- (66) $\frac{3}{8} + \frac{8}{3} - 2 =$ _____
- (67) $666 \times \frac{2}{37} =$ _____
- (68) The sum of the first ten terms of the Fibonacci sequence 4, 5, 9, 14, 23, ... is _____
- (69) If $\sin 27^\circ = \cos A$ and $A \in QI$, then $A =$ _____ $^\circ$
- *(70) $5714.28 \times 83 =$ _____
- (71) Find the length of the median to side 7 of a triangle with sides 6, 7, and 7 units. _____
- (72) The sum of the first 5 triangular numbers is _____
- (73) A store has red, blue, green, brown, purple, and yellow crayons. How many different sets of four crayons can the store sell? _____
- (74) 2.25 is to 9 as 1.5 is to _____
- (75) If $f(x) = 3x^2 - 2x + 1$, then $f'(-4) =$ _____
- (76) The horizontal asymptote of $y = \frac{2x^2 - 1}{3x^2 + 2}$ is $y =$ _____
- (77) Change $\frac{38}{125}$ to a base 5 decimal. _____
- (78) If $f(x) = 2x^2 - 3x + 4$ then $f'(-1) =$ _____
- (79) How many lines are determined by four points, no three of which are collinear? _____
- *(80) $818 \div 44\frac{4}{9}\% \times 12.5 =$ _____