

Number Sense Exam 035, 8/11/2017

- (1) Which is larger $\frac{7}{12}$ or $\frac{9}{16}$? _____
- (2) $28 - 208 - 2008 =$ _____
- (3) $.035 =$ _____ (fraction)
- (4) $503 \div 9 =$ _____ (mixed number)
- (5) $600.2 - 200.6 =$ _____ (decimal)
- (6) $2010 \times 11 =$ _____
- (7) $\frac{4}{5}\% =$ _____ (decimal)
- (8) $15 + 10 \div 5 \times 10 - 15 =$ _____
- (9) $25 \times 2008 =$ _____
- *(10) $55 \times 555 - 5555 =$ _____
- (11) $\text{LCM}(35, 55) \times \text{GCD}(35, 55) =$ _____
- (12) $.076 =$ _____ (fraction)
- (13) $10 + 11 \times 12 - 13 =$ _____
- (14) $11^3 =$ _____
- (15) $63 \times 63 =$ _____
- (16) A 4-element set has _____ subsets
- (17) $40 \times 23 - 17 \times 23 =$ _____
- (18) If 1 gram = .04 oz., then 48 grams = _____ oz.
- (19) $22 \times 16 + 16 \times 38 =$ _____
- *(20) $412 \times 1861 =$ _____
- (21) The sum of 3 consecutive even integers is 78. Find the largest of the integers. _____
- (22) $\{s, l, o, p, e\} \cap \{l, i, n, e\}$ has _____ distinct elements
- (23) The sum of three consecutive integers is 63. The middle integer is _____
- (24) $(72 \times 64 - 83) \div 7$ has a remainder of _____
- (25) $97 \times 102 =$ _____
- (26) $4\frac{1}{4} \times 8\frac{1}{4} =$ _____
- (27) How far will a car travel in 2 hours and 40 minutes at a constant rate of 60 mph? _____ miles
- (28) 130 plus 70% of 130 is _____
- (29) $(33 \times 6 + 7) \div 5$ has a remainder of _____
- *(30) $118 \times 118 - 19 \times 121 =$ _____
- (31) $|-5 - |6 - 10| + 3| =$ _____
- (32) The largest value of x such that $|3x + 2| \leq 11$ is _____
- (33) How many positive integers less than 20 are relatively prime to 11? _____
- (34) $.14114114\dots =$ _____ (fraction)
- (35) The product of the roots of $4x^3 - 3x^2 + 2x - 1 = 0$ is _____
- (36) 2541 cubic inches = _____ gallons
- (37) $3 \times 2! + 4 \times 3! + 5 \times 4! =$ _____
- (38) If $x > 0$ and $2|x + 4| = 14$, then $x =$ _____
- (39) Set P has 63 proper subsets. How many elements are in set P? _____
- *(40) $34267 \div 124 =$ _____
- (41) Find the slope of a line perpendicular to the line containing the points (2, 4) and (-3, 6). _____

- (42) $\frac{11}{13} + \frac{2}{11} =$ _____ (mixed number)
- (43) The interior angle of a regular decagon is _____ degrees
- (44) $1111_4 + 222_5 + 33_6 =$ _____₁₀
- (45) $\sqrt{50} \div \sqrt{72} =$ _____
- (46) $21 \times 31 =$ _____
- (47) If $75 \times 34 = 15 \times y$, then $y =$ _____
- (48) If A is $\frac{4}{5}$ of B and B is $\frac{4}{5}$ of C , then A is what percent of C ? _____ %
- (49) $\frac{3}{14} =$ _____ %
- *(50) $566472 \div 748 =$ _____
- (51) $444 \times \frac{3}{37} =$ _____
- (52) $\frac{(x^2 + 4x + 4)(x^2 - 5x + 6)}{(x^2 - 4)(x - 3)} = x +$ _____
- (53) The parabola $y = x^2 - 2x + 1$ has a vertex at (h, k) . Find h . _____
- (54) $4 + 6 + 8 + 10 + \dots + 20 =$ _____
- (55) The legs of a right triangle are 3 and 4. The length of the altitude to the hypotenuse is _____
- (56) $\tan(-45^\circ) =$ _____
- (57) Let $|2x + 3| \leq 11$. The least value of x is _____
- (58) 18% of $316\frac{2}{3} =$ _____
- (59) How many ways can 5 people be seated 4 at a time in 4 chairs in a row? _____
- *(60) $14 \times 28 \times 45 =$ _____
- (61) $\frac{7}{15} - \frac{27}{61} =$ _____
- (62) $(2 + 3i)(4 - 5i) = a + bi$ and $b =$ _____
- (63) $42_5 \times 4_5 =$ _____₅
- (64) If $\log_8(3x - 7) = \frac{2}{3}$, then $x =$ _____
- (65) $\sqrt{5329} =$ _____
- (66) $\det \begin{bmatrix} -1 & -6 \\ 3 & 10 \end{bmatrix} =$ _____
- (67) $52^2 - 56^2 + 60^2 - 64^2 =$ _____
- (68) The product of the coefficients of $(a + b)^3$ is _____
- (69) Convert $0.1666\dots_8$ to a base 8 fraction. _____₈
- *(70) $\sqrt{1025} \times \sqrt{730} =$ _____
- (71) $(33_5) \times (4_5) =$ _____₅
- (72) The distance between the lines $3x - 4y = 8$ and $3x - 4y = 3$ is _____
- (73) If $f(x) = 2x^2 - 3x + 4$ then $f'(-1) =$ _____
- (74) $0.313131\dots_5 =$ _____₅ (proper fraction)
- (75) Change $.231$ base 4 to a base 10 fraction. _____
- (76) Change $.12$ base 5 to a base 10 decimal. _____
- (77) $3^7 \div 4$ has a remainder of _____
- (78) $f(x) = 5x - 6$ and $g(x) = 3x - 4$, $f(g(2)) =$ _____
- (79) If $\sin \theta = .8$ then $\cos \theta =$ _____ in QIV
- *(80) 3.75 square miles = _____ acres