

Number Sense Exam 003, 12/09/2016

- (1) $14 \times 32 =$ _____
- (2) $27.5\% =$ _____ (proper fraction)
- (3) $2001 \times 17 + 3 =$ _____
- (4) $27 \times 25 =$ _____
- (5) $2006 \div 9 =$ _____ (mixed number)
- (6) $21 \times 12 =$ _____
- (7) Which is smaller, $\frac{8}{11}$ or $\frac{7}{9}$? = _____
- (8) $(24 + 18) \div 12 \times (3 - 6) =$ _____
- (9) $60\% + .8 - 75\% =$ _____ (fraction)
- *(10) $2007 - 207 + 702 - 7002 =$ _____
- (11) How many positive integers divide 63? _____
- (12) $2\frac{3}{4} + 6\frac{7}{8} =$ _____ (mixed number)
- (13) The GCD of 96 and 56 is _____
- (14) $\frac{5}{4} + \frac{4}{5} =$ _____ (mixed number)
- (15) $38 \times 74 =$ _____
- (16) The multiplicative inverse of -7.2 is _____
- (17) $34 \times 46 =$ _____
- (18) $15^2 =$ _____
- (19) The GCD of 78 and 114 is _____
- *(20) $7532 \times 1468 =$ _____
- (21) If $x = 5$ and $y = 2$ then $x^2 - 2xy + y^2 =$ _____
- (22) 6 pints is what percent of a gallon? _____ %
- (23) $423156 \div 12$ has a remainder of _____
- (24) If $37^2 - 31^2 = 2y$ then $y =$ _____
- (25) $43 \times 57 =$ _____
- (26) 2.5 pints = _____ cups
- (27) $\sqrt{40 \times 160} =$ _____
- (28) The number of positive integral divisors of 48 is _____
- (29) $.5 - .25 - .125 =$ _____ (proper fraction)
- *(30) $\sqrt{1234} \times 56 =$ _____
- (31) Set $A = \{m, e, n, t, a, l\}$ and set $B = \{m, a, t, h\}$. $A \cap B$ contains how many elements? _____
- (32) $14443 \times 17 =$ _____
- (33) A ticket costs \$5.75. 12 tickets costs \$ _____
- (34) $14443 \times 7 =$ _____
- (35) $9 - 7 \times (5 + 3) \div 1 =$ _____
- (36) The set $\{T, W, O\}$ has _____ proper subsets
- (37) $.5757\dots =$ _____ (fraction)
- (38) If $x = -3$ and $y = -2$ then $x^2 - 2xy + y^2 =$ _____
- (39) If $5x + 7 = 6x - 2$ then $x =$ _____
- *(40) $24 \times 34 \times 44 =$ _____
- (41) $212 \times 311 =$ _____
- (42) $\frac{3}{14} =$ _____ %
- (43) $14 \times 25 + 12.5 \times 28 =$ _____
- (44) $9^6 \times 9^{-4} \div 9^{-2} = 9^k$, then $k =$ _____
- (45) $35 \times 85 =$ _____
- (46) If a 4'' by 6'' picture is enlarged to 6'' by 10'', its area is multiplied by _____
- (47) If $4x + 5 > 20$ then $x >$ _____

- (48) If the area of an equilateral triangle is $3\sqrt{3}$ square inches, then its height is _____ inches.
- (49) Find x , if $3x - y = 3$ and $x - 2y = 16$ _____
- *(50) $15^3 \times 5^3 =$ _____
- (51) find $k > 0$, so that the four digit number $567k$ is divisible by 6. _____
- (52) The hypotenuse of a 30° - 60° right triangle is 3 inches long. The shortest leg is _____ inches.
- (53) $412 \times 112 =$ _____
- (54) When two dice are tossed, the probability that the sum of the faces will be 3 is _____
- (55) How many distinct 5 letter words, real or imaginary, can be made using the letters s, c, o, t, t ?
- (56) $123 \times 301 =$ _____
- (57) 18% of $266\frac{2}{3}$ is _____
- (58) $62 \times 68 = 16 =$ _____
- (59) Let $|2x + 3| \leq 11$. The least value of x is _____
- *(60) The perimeter of $90x^2 + 150y^2 = 13500$ is _____
- (61) $31^2 - 33^2 + 35^2 - 37^2 =$ _____
- (62) $\frac{5}{6} + 1.2 - 2 =$ _____
- (63) $\sin\left(\frac{13\pi}{6}\right) =$ _____
- (64) $222_3 \times 2_3 =$ _____ ₃
- (65) $\sin(\arccos .6) =$ _____ (decimal)
- (66) $111 \times 56 =$ _____
- (67) The surface area of a sphere with radius 4 is $k\pi$ and $k =$ _____
- (68) $f(x) = 5x^3 + 4x^2 + 3x - 2$ divided by $x + 1$ has a remainder of _____
- (69) The dot product for $u = (2, 1)$ and $v = (4, 3)$ is _____
- *(70) $1^3 + 2^3 + 3^3 + \dots + 6^3 =$ _____
- (71) $111 \times \frac{7}{27} =$ _____ (mixed number)
- (72) If $g(x) = 3x + 2$, then $g^{-1}(-1) =$ _____
- (73) $\int_1^2 x^3 dx =$ _____
- (74) $f(x) = x + \frac{1}{x}$ has _____ asymptotes
- (75) If $f(x) = \frac{4x}{5}$, then $f^{-1}(2) =$ _____
- (76) $2 \times 3 \times 5 \times 7 \times 11 =$ _____
- (77) A pair of dice is thrown. The probability that the sum is 7 is _____
- (78) $\log_2 [\log_2 (\log_2 256)] =$ _____
- (79) The total surface area of a cube with a lateral surface area of 196cm^2 is _____ cm^2
- *(80) $91.666\dots \times 358 =$ _____