

Number Sense Exam 007, 1/13/2016

- (1) $1\frac{3}{5} - 2.2 =$ _____
- (2) $17 + 9 - 13 + 23 =$ _____
- (3) $2008 - 2009 =$ _____
- (4) $\frac{3}{4} \times \frac{14}{15} =$ _____
- (5) $2010 \div 11$ has a remainder of _____
- (6) $2006 \div 25 =$ _____ (decimal)
- (7) $\$12.09 \div .3 = \$$ _____
- (8) $2009 - 9002 =$ _____
- (9) $31^2 =$ _____
- *(10) $777 - 864 - 222 =$ _____
- (11) 280 plus 30% of 320 is _____
- (12) MCDV + DCIV = _____ (Arabic numeral)
- (13) The sum of the positive integral divisors of 51 is _____
- (14) 32 is 80% of what? _____
- (15) $28^2 =$ _____
- (16) $27 \times 37 =$ _____
- (17) The LCM of 16, 24 and 32 is _____
- (18) The mean of 27, 16, 42, and 31 is _____
- (19) The reciprocal of -3.25 is _____
- *(20) $\sqrt{780} \times \sqrt{1080} =$ _____
- (21) $41 \times 49 =$ _____
- (22) If $6x - 5 = 4$, then $3x - 2 =$ _____
- (23) $12 \times 345 =$ _____
- (24) $97 \times 102 =$ _____
- (25) $.2141414\dots =$ _____ (proper fraction)
- (26) The total number of 1-element subsets and 4-element subsets of the set $\{r, o, u, n, d\}$ is _____
- (27) If $f(x) = 4x^2 - 4x + 1$ then $f(23) =$ _____
- (28) $(4)^{-1} + (4)^{-2} =$ _____
- (29) $1815 \div 15 =$ _____
- *(30) 106% of 319 = _____
- (31) $(6^3 + 4^2 \times 2^1) \div 8$ has a remainder of _____
- (32) 30 base 6 is equivalent to _____ base 8
- (33) $101100111_2 =$ _____ s
- (34) $9^3 =$ _____
- (35) $(65 - 4 \times 3) \div 6$ has a remainder of _____
- (36) If $\sqrt{125} - \sqrt{45} = \sqrt{x}$, then $x =$ _____
- (37) The area of an equilateral triangle is $\sqrt{3}$ cm². The side of the triangle is _____ cm
- (38) $(19 \times 8 - 7) \div 6$ has a remainder of _____
- (39) $97 \times 89 =$ _____
- *(40) $\sqrt[3]{730} \times \sqrt{80} \times 9 =$ _____
- (41) $48 \times 0.1875 =$ _____
- (42) The area of an equilateral triangle is $4\sqrt{3}$ cm². Its perimeter is _____ cm.
- (43) If A is 10% more than B and B is 10% less than C , then A is what % less than C ? _____ %
- (44) The area of the triangle whose base is 6 times its height h is kh^2 and $k =$ _____
- (45) The slope of the line $6x + 2y = 8$ is _____

- (46) (x, y) is the midpoint of the line segment whose endpoints are $(2, 5)$ and $(5, 9)$. $y =$ _____
- (47) $\frac{3}{14} =$ _____ %
- (48) $32 \times 0.0625 =$ _____
- (49) A hexagon has _____ sides
- *(50) $714.285 \times 348 =$ _____
- (51) If $(3 + 2i)^2 = a + bi$, then $b =$ _____
- (52) $(4 + 3i) \div 2i = a + bi$ and $b =$ _____
- (53) ${}_7P_4 =$ _____
- (54) $151 \times 115 =$ _____
- (55) $131 \times 212 =$ _____
- (56) $\sin\left(-\frac{\pi}{6}\right) \times \cos\left(\frac{\pi}{3}\right) =$ _____
- (57) $(2 - 5i)(3 - 4i) = a + bi$. Find $a - b$. _____
- (58) $5^5 \times 2^2 =$ _____
- (59) The integral sides of a triangle are 3, 4, and x .
The least value of x is _____
- *(60) $875 \times 890 \div 777 =$ _____
- (61) If $\sqrt{12} + \sqrt{27} = \sqrt{x}$, then $x =$ _____
- (62) $\sin \frac{\pi}{4} \div \cos \frac{\pi}{4} =$ _____
- (63) If $\log_x 81 = \log_2 16$ then $x =$ _____
- (64) $111 \times 56 =$ _____
- (65) $16^2 - 17^2 + 18^2 - 19^2 =$ _____
- (66) $57^2 =$ _____
- (67) $\frac{5!}{2! + 3!} \equiv x \pmod{7}$, and $0 \leq x \leq 6$. $x =$ _____
- (68) If $\det \begin{bmatrix} 2 & 3 \\ 4 & 5 \end{bmatrix} = x$, then $x - 1 =$ _____
- (69) $69^2 + 69 =$ _____
- *(70) $7e^2 \times 9\pi^2 =$ _____
- (71) $\lim_{x \rightarrow \infty} \frac{3x}{x - 1} =$ _____
- (72) $f(x) = \frac{3 - 4x}{x - 5}$ has how many asymptotes? _____
- (73) $\int_{-2}^2 x^2 dx =$ _____
- (74) $\log_3 [\log_4 (\log_5 625)] =$ _____
- (75) $\log_2 [\log_2 (\log_2 256)] =$ _____
- (76) $\frac{1}{6} + \frac{1}{10} + \frac{1}{15} + \frac{1}{21} =$ _____
- (77) If $f'(x) = 4x$, $f(x) = ax^2 + b$, find a . _____
- (78) The sum of the first ten terms of the Lucas sequence 3, 4, 7, 11, 18, ... is _____
- (79) The sum of the first ten terms of the sequence 1, 4, 5, 9, 14, ... is _____
- *(80) 5432 miles/hour = _____ feet/second