

Number Sense Exam 006, 1/1/2017

- (1) $5 - 4 \times 3 + 2 \div 1 =$ _____
- (2) $\frac{7}{80} =$ _____ % (decimal)
- (3) $3143 \div 5 =$ _____ (decimal)
- (4) $26^2 =$ _____
- (5) $3\frac{1}{4}\% =$ _____ (decimal)
- (6) $15 \times 28 =$ _____
- (7) $75 \times .84 =$ _____
- (8) $64 \div 25 =$ _____
- (9) The negative reciprocal of .6 is _____
- *(10) $2007 - 207 + 702 - 7002 =$ _____
- (11) $(36 \times 18 - 12) \div 5$ has a remainder of _____
- (12) $.3222\dots =$ _____ (proper fraction)
- (13) The mode of 2, 8, 4, 8, 2, 4, 8, 4, and 8 is _____
- (14) The GCD(16, 20)– LCM(16, 20) is _____
- (15) The reciprocal of .24 is _____
- (16) $48 \times 22 - 22 \times 78 =$ _____
- (17) $25 \times 46 =$ _____
- (18) $27 \times 72 =$ _____
- (19) MCM + CVIII = _____ (Arabic Numeral)
- *(20) $1357 \times 2468 =$ _____
- (21) 3 cups is what percent of a quart? _____ %
- (22) $7\frac{1}{7} \times 49\frac{1}{7} =$ _____ (mixed number)
- (23) If $\frac{3}{4} = \frac{3x}{5}$, then $x =$ _____
- (24) $.212121\dots =$ _____ (proper fraction)
- (25) $3\frac{1}{6} - 6\frac{1}{3} =$ _____ (mixed number)
- (26) $1.25 - .75 - .25 =$ _____ (proper fraction)
- (27) If $x = 5$ and $y = 2$ then $x^2 - 2xy + y^2 =$ _____
- (28) $(15 + 14 \times 13) \div 12$ has a remainder of _____
- (29) $651243 \div 6$ has a remainder of _____
- *(30) 106.25% of 640 = _____
- (31) The 5th hexagonal number is _____
- (32) Circle O has a diameter of 7'' and circle P has a diameter of 5''. The ratio of O 's circumference to P 's circumference is _____
- (33) $.5757\dots =$ _____ (fraction)
- (34) $385 \times 13 =$ _____
- (35) $\sqrt{98 \times 8} =$ _____
- (36) $11\frac{1}{11} \times 22\frac{1}{11} =$ _____ (mixed number)
- (37) 12% of 200 is _____ % of 50
- (38) 33 plus 25% of 44 is _____
- (39) If $\frac{2}{3} + \frac{4}{5} = \frac{1}{x}$, then $x =$ _____
- *(40) $\sqrt[3]{730} \times \sqrt{80} \times 9 =$ _____
- (41) $(6)(5)(4!) - 5! =$ _____
- (42) The area of an equilateral triangle is $4\sqrt{3}$ cm². Its perimeter is _____ cm.
- (43) The measure of each of the interior angles of a regular decagon is _____ degrees
- (44) $\frac{7}{13} + \frac{6}{7} =$ _____ (mixed number)
- (45) The measure of an exterior angle of a regular n -gon is 18°. $n =$ _____ sides

- (46) The area of a square increased from 49 to 81 sq. units. The increase in perimeter was _____ units.
- (47) $5! \times 3! =$ _____
- (48) $312_4 =$ _____ ₂
- (49) $31 \times 4! + 36 \times 3! =$ _____
- *(50) $12^4 \div 6^3 \times 3^2 =$ _____
- (51) ${}_6C_3 =$ _____
- (52) If $\log_1 2x = 3$ then $x =$ _____
- (53) 12 degrees = $\frac{\pi}{k}$ radians. find k . _____
- (54) $65 \times 35 =$ _____
- (55) When two dice are tossed, the probability that the sum of the faces will be 3 is _____
- (56) The vertex of the parabola $y = x^2 + 8x$ is (h, k) . Find h . _____
- (57) The sum of the roots of $2x^3 - 4x^2 + 5x + 6 = 0$ is _____
- (58) The radius of the circle $x^2 + y^2 = 16$ is _____
- (59) $3 - 1 - \frac{1}{3} - \frac{1}{9} - \frac{1}{27} - \dots =$ _____
- *(60) $(35)^3 =$ _____
- (61) The sum of the positive integral divisors of 45 is _____
- (62) $\tan\left(\frac{\pi}{3}\right) =$ _____
- (63) $22^2 - 23^2 + 24^2 - 25^2 =$ _____
- (64) How much time has passed from 8:30am to 3:45pm the same day? _____ hours
- (65) $402^2 =$ _____
- (66) $\cos(\arcsin 0) =$ _____
- (67) $\ln(e^2) =$ _____
- (68) $f(x) = 5x^3 + 4x^2 + 3x - 2$ divided by $x + 1$ has a remainder of _____
- (69) An acute triangle has integer sides of 2, 7, and x . The largest value of x is _____
- *(70) $400 \sin\left(\frac{29\pi}{180}\right) =$ _____
- (71) The horizontal asymptote of $y = 4^x + 2$ is _____
- (72) $f(x) = x + \frac{1}{x}$ has _____ asymptotes
- (73) The amplitude of $y = 2 - 3 \cos 4(x + 5)$ is _____
- (74) $y = \frac{1}{x + 1} - 3$ has a horizontal asymptote at $y =$ _____
- (75) The sum of the first nine terms of the Fibonacci sequence 1, 1, 2, 3, 5, ... is _____
- (76) $111 \times 27 =$ _____
- (77) $f(x) = x^4 + 4x^3 + 6x^2 + 4x + 1$. Find $f'(-1) =$ _____
- (78) If the initial point of a vector is $(3, 7)$ and the terminal point is $(-1, 4)$, then $\|v\| =$ _____
- (79) $2 \times 3 \times 5 \times 7 \times 11 =$ _____
- *(80) $797 \div 87.5\% \times \frac{7}{10} =$ _____