

Number Sense Exam 009, 1/20/2017

- (1) $25 \times 70 + 25 \times 50 =$ _____
- (2) $3.2 \times 2.3 =$ _____ (decimal)
- (3) Which is smaller: $-\frac{11}{15}$ or $-\frac{9}{13}$? _____
- (4) $\frac{3}{5} =$ _____ %
- (5) $2002 - 1529 - 17 =$ _____
- (6) $(-3) \times 1\frac{1}{2} =$ _____ (mixed number)
- (7) $(-3.2) \times (0.32) =$ _____ (decimal)
- (8) $77 \div 25 + 123 \div 25 =$ _____
- (9) $15 \times 51 =$ _____
- *(10) $41 \times 411 + 4111 =$ _____
- (11) $11 \div 1\frac{2}{3} =$ _____
- (12) $(44 + 55 \times 66) \div 7$ has a remainder of _____
- (13) Which is larger, $\frac{11}{15}$ or $\frac{15}{19}$? = _____
- (14) $39 - 13 \div 4 \times 12 =$ _____
- (15) $11^4 =$ _____
- (16) Which is smaller: $1\frac{1}{3}$ or 1.3 ? _____
- (17) The reciprocal of $.24$ is _____
- (18) $11^3 =$ _____
- (19) $63 \times 63 =$ _____
- *(20) $\sqrt{839} \times \sqrt{963} =$ _____
- (21) $6^7 \div 8$ has a remainder of _____
- (22) $|1 - 3| - 2|3 - 1| - 3| - 1 - 1| =$ _____
- (23) The sum of the positive integral divisors of 20 is _____
- (24) $12345 \div 4$ has a remainder of _____
- (25) $8\frac{1}{8} \times 16\frac{1}{8} =$ _____ (mixed number)
- (26) Sue drove 180 miles in 4.5 hours. Her average speed was _____ mph
- (27) 18 inches is what percent of a foot? _____ %
- (28) 123 base 10 equals _____ base 5
- (29) $21 \times 21 + 63 \times 63 =$ _____
- *(30) $\sqrt{346598} =$ _____
- (31) 48% of 64 is 96% of _____
- (32) $1 - |2 + |-3 + 4|| =$ _____
- (33) $1^2 + 5^2 + 6^2 + 11^2 =$ _____
- (34) The 6th pentagonal number is _____
- (35) The smallest root of $x^2 + x = 20$ is _____
- (36) Three times a number minus 7 equals to the number plus 13. The number is _____
- (37) Let $x = 2y$, $y = 3z$, and $z = -1$. Find xyz . _____
- (38) $462 \times 13 =$ _____
- (39) $(19 \times 8 - 7) \div 6$ has a remainder of _____
- *(40) $\sqrt{25252} =$ _____
- (41) If a triangle has sides of 6, 8, and x then $x <$ _____
- (42) $8^x = 80$ then $8^{(x+2)} =$ _____
- (43) Let r , s , and t be the roots of $2x^3 + 4x = 5$. Then $r \times s \times t =$ _____
- (44) The leg opposite of the 30° angle in a right triangle is 3.5 cm. The hypotenuse is _____ cm
- (45) $7\frac{1}{7}\% =$ _____ (proper fraction)

- (46) $\frac{3}{14} =$ _____ %
- (47) $5^2 \times 4^3 =$ _____
- (48) The point $(2, 7)$ is reflected across the y -axis to point (h, k) . Find h . _____
- (49) Let $a^2 \div a^{-4} \div a^6 = a^k$ and $a > 1$, then $k =$ _____
- *(50) $12^4 \div 6^3 \times 3^2 =$ _____
- (51) 33% of $466\frac{2}{3}$ is _____
- (52) The simplified coefficient of the xy term in the expansion of $(2x - y)^2$ is _____
- (53) $32_6 \div 5_6 \times 4_6 =$ _____₆
- (54) If A is 20 more than B and C is 10 less than A , then C is how much more than B ? _____
- (55) The largest integer x such that $3 < 4 - 5x$ is _____
- (56) $123_7 - 45_7 =$ _____₇
- (57) If $\log_b 8 = 3$, then $b =$ _____
- (58) The area of $x^2 + (y - 2)^2 = 2$ is $k\pi$. $k =$ _____
- (59) The smaller root of $11x^2 + 18x + 7 = 0$ is _____
- *(60) $16 \times 18 \times 20 =$ _____
- (61) $\tan\left(\frac{\pi}{3}\right) =$ _____
- (62) The slope of the line $2y - 4 = -6x$ is _____
- (63) The sum of the coefficients of $(x - y)^3$ is _____
- (64) How much time has passed from 8:30am to 3:45pm the same day? _____ hours
- (65) $\sin\left(\frac{5\pi}{6}\right) \div \cos\left(\frac{2\pi}{3}\right) =$ _____
- (66) $404 \times 111 =$ _____
- (67) $\cos\frac{4\pi}{3} =$ _____
- (68) $(68_8) + (54_8) \div 7$ has a remainder of _____
- (69) $2^2 + 1^2 + 3^2 + 4^2 + 7^2 + 11^2 =$ _____
- *(70) $3142009 \div 5678 =$ _____
- (71) If $f(x) = 2 - x$ and $g(x) = x + 2$, then $g(f(-2)) =$ _____
- (72) The horizontal asymptote of $y = \frac{x + 1}{x - 3}$ is _____
- (73) $6^{13} \div 11$ has a remainder of _____
- (74) If $h(x) = 1 + 2x^2 - 3x^3$, then $h''(4) =$ _____
- (75) $\sqrt{97969} =$ _____
- (76) If $f(x) = x^3 - x^2 - x - 1$, then $f''(-1) =$ _____
- (77) The probability of rolling a factor of 6 on a single die is _____
- (78) If $\csc(\theta) = 1.1$, then $\sin(\theta) =$ _____
- (79) The n th term of 4, 7, 12, 19, 28, ... is _____
- *(80) $375 \div 833 \times 555 =$ _____