

Middle School Number Sense Exam 030, 12/15/2017

- (1) $\frac{3}{8} =$ _____ (decimal)
- (2) $0.321 =$ _____ % (decimal)
- (3) $12 + 19 + 7 + 8 + 13 + 1 =$ _____
- (4) $543 - 376 =$ _____
- (5) $32 \times 12 =$ _____
- (6) $299 \times 7 =$ _____
- (7) $1345 - 866 =$ _____
- (8) $4284 \div 14 =$ _____
- (9) $33\frac{1}{3}\%$ of 78 is _____
- *(10) $94 + 168 + 2145 + 13192 =$ _____
- (11) $16^2 =$ _____
- (12) $75 \times 76 =$ _____
- (13) $4 \times 3 \times 2 \times 1 \times 0 =$ _____
- (14) $3.2 \times 10^{-3} =$ _____
- (15) $\frac{2}{3} - \frac{3}{8} =$ _____
- (16) $\frac{9}{117}$ reduced to lowest terms is _____
- (17) $7272 \div 18 =$ _____
- (18) $78 \times 38 =$ _____
- (19) $66\frac{2}{3} \times 120 =$ _____
- *(20) 37% of 7613 = _____
- (21) $5\frac{1}{3}\%$ = _____ (fraction)
- (22) 30% of 80 = _____
- (23) $17^2 - 8^2 =$ _____
- (24) The mean of 69, 64, 62, and 61 is _____
- (25) 110 feet = _____ inches
- (26) $1 + 3 + 5 + \dots + 29 =$ _____
- (27) How many prime numbers are between 70 and 80? _____
- (28) $105^2 =$ _____
- (29) $4.4 \times 46 =$ _____ (decimal)
- *(30) $17011 \div 45 =$ _____
- (31) The mean of the first 17 even numbers is _____
- (32) $\frac{7}{13} + \frac{13}{7} =$ _____ (mixed number)
- (33) How many positive integral divisors does 55 have? _____
- (34) 0.5 gallon = _____ ounces
- (35) Find the ratio of the area to the perimeter of a 6, 8, 10 right triangle. _____
- (36) The additive inverse of 42 is _____
- (37) The reciprocal of $-9\frac{1}{8}$ is _____
- (38) $18^2 + 54^2 =$ _____
- (39) $-9^2 =$ _____
- *(40) $\sqrt{7324710} =$ _____
- (41) If $Ax + 9y = 12$ has a slope of $-\frac{1}{3}$, then $A =$ _____
- (42) $\{q, u, i, t, m, a, n\}$ has _____ proper subsets
- (43) 11 yards = _____ miles
- (44) If $f(x) = -2x - 9$, then $f(-5) =$ _____
- (45) $88 \times 95 =$ _____
- (46) $28 \times 32 =$ _____
- (47) $(66 \times 38) \div 4$ has a remainder of _____

- (48) 77 cubic inches = _____ gallons
- (49) If $x = 4$ and $y = 7$, then $4x^2 + 4xy + y^2 =$ _____
- *(50) $\sqrt{4000} =$ _____
- (51) If $3x = 4y$ and $7y = 6z$, then $x =$ _____ z 's
- (52) The area of an equilateral triangle with side 18 is $k\sqrt{3}$, $k =$ _____
- (53) 80 acres = _____ sq. miles
- (54) In the arithmetic sequence
 $\dots, x, 14, y, 16, z, \dots$, the value of $x + y + z$ is _____
- (55) $\frac{2}{11}$ gallon = _____ cubic inches
- (56) $425_7 - 256_7 =$ _____ $_7$
- (57) $94 \times 14 =$ _____
- (58) If $f(x) = 2x^2 + 6x - 5$, then $f(-5) =$ _____
- (59) $(32 \times 9 + 14) \div 8$ has a remainder of _____
- *(60) $17 \times 19 \times 21 =$ _____
- (61) If $x = 15$ and $y = 2$, then $(x - y)(x + y) =$ _____
- (62) $(47 \times 19 + 7) \div 6$ has a remainder of _____
- (63) If $\sqrt{108}$ simplifies as $a\sqrt{b}$, then $a =$ _____
- (64) The sum of the coefficients of $(2x + by)^2$ is 16, find the smaller value of b . _____
- (65) $1 + 2 + 3 + \dots + 38 + 39 =$ _____
- (66) $0.3888\dots =$ _____ (fraction)
- (67) If $3x^2 - 5 = 70$ and $x < 0$, then $x =$ _____
- (68) If $f(x) = x^{-1} + 5$, then $f\left(\frac{1}{8}\right) =$ _____
- (69) $52^2 + 15^2 =$ _____
- *(70) The surface area of a tetrahedron if each face has an area of 729 is _____
- (71) $66^2 + 54^2 =$ _____
- (72) If the $\sin(60^\circ) = a\sqrt{3}$, then $a =$ _____
- (73) The slope of the line passing through
 $(21, 13)$ and $(18, 4)$ is _____
- (74) $(4a^3b^2)^2 \div (2ab)^3 =$ _____
- (75) If $2x = 11y$ and $3t = 18z$, then $x =$ _____ z 's
- (76) If $61_b = 43_{10}$, then $b =$ _____
- (77) The probability of rolling a pair of dice and getting a sum of 6 is _____
- (78) If $3x - 4 = 11$, then $30x - 40 =$ _____
- (79) If $14\sqrt{x} - 7 = 35$, then $x =$ _____
- *(80) $5.3 \times 4.7 \times 1.3 =$ _____