

# Middle School Number Sense Exam 027, 11/18/2017

- (1)  $32574 \div 4$  has a remainder of \_\_\_\_\_
- (2)  $4\% =$  \_\_\_\_\_ (decimal)
- (3)  $1432 - 865 =$  \_\_\_\_\_
- (4)  $\frac{13}{4} =$  \_\_\_\_\_ %
- (5)  $\frac{11}{250} =$  \_\_\_\_\_ (decimal)
- (6)  $221 \div 13 =$  \_\_\_\_\_
- (7)  $\frac{5}{3} \times 12 \times 20 =$  \_\_\_\_\_
- (8)  $5.3 + 7.9 + 3.8 =$  \_\_\_\_\_
- (9)  $59 \times 11 =$  \_\_\_\_\_
- \*(10)  $7 + 17 + 27 + 37 + 47 + 57 + 67 =$  \_\_\_\_\_
- (11)  $42 \times 50 =$  \_\_\_\_\_
- (12)  $LXII + 27 =$  \_\_\_\_\_ (Roman Numeral)
- (13)  $63 \times 6.7 =$  \_\_\_\_\_ (decimal)
- (14)  $54 \times 25 =$  \_\_\_\_\_
- (15)  $MLXII =$  \_\_\_\_\_ (Arabic Number)
- (16)  $47 \times 50 =$  \_\_\_\_\_
- (17)  $4 \times 11\frac{3}{4} =$  \_\_\_\_\_
- (18) The mean of 10, 8, 3, 9, and 15 is \_\_\_\_\_
- (19)  $15 \times 34 =$  \_\_\_\_\_
- \*(20)  $594 \times 288 =$  \_\_\_\_\_
- (21)  $4 \times 11 \div 3 + 13 \div 3 =$  \_\_\_\_\_
- (22)  $13 \times 3\frac{9}{13} =$  \_\_\_\_\_
- (23) The remainder of  $7168 \div 9$  is \_\_\_\_\_
- (24)  $324 \times 0.333\dots =$  \_\_\_\_\_
- (25) 42 has how many distinct prime divisors? \_\_\_\_\_
- (26)  $9 \times 4\frac{5}{9} =$  \_\_\_\_\_
- (27)  $\overline{.126} =$  \_\_\_\_\_ (fraction)
- (28)  $2\frac{1}{2} \times 44 =$  \_\_\_\_\_
- (29) The GCF of 100 and 24 is \_\_\_\_\_
- \*(30)  $14 \times 652 \times 3\frac{5}{14} =$  \_\_\_\_\_
- (31) 81 has how many positive integral divisors? \_\_\_\_\_
- (32) If  $\frac{1}{3}(27n + 33) = 65$ , then  $n =$  \_\_\_\_\_
- (33) The measure of an angle complementary to a  $14^\circ$  angle is \_\_\_\_\_  $^\circ$
- (34)  $-60^2 =$  \_\_\_\_\_
- (35)  $16^2 + 32^2 =$  \_\_\_\_\_
- (36) The area of a rhombus with diagonals 9 mm and 18 mm is \_\_\_\_\_ sq. mm.
- (37)  $37^2 - 13^2 =$  \_\_\_\_\_
- (38) 19 pints = \_\_\_\_\_ gallons
- (39) The mode of 7, 77, 7, 7, 77, 77 and 7 is \_\_\_\_\_
- \*(40) 37% of 11362 = \_\_\_\_\_
- (41) If  $f(x) = \frac{15}{x}$ , then  $f\left(\frac{1}{15}\right) =$  \_\_\_\_\_
- (42) The simple interest on \$3000 at 6% for 18 months is \$ \_\_\_\_\_
- (43) The number halfway between 78 and 146 is \_\_\_\_\_
- (44) The eighth triangular number is \_\_\_\_\_
- (45)  $1111^2 =$  \_\_\_\_\_
- (46) The product of the LCM and GCF of 9 and 21 is \_\_\_\_\_

- (47)  $\sqrt{1764} =$  \_\_\_\_\_
- (48) 36 has \_\_\_\_\_ different, positive factors
- (49)  $(62 - 26) \div 9$  has a remainder of \_\_\_\_\_
- \*(50)  $18 \times 19 \times 20 =$  \_\_\_\_\_
- (51) The slope of a line that has a  $y$ -intercept of 4 and an  $x$ -intercept of  $-2$  is \_\_\_\_\_
- (52) How many terms are in the sequence 7, 16, 25, 34, 43,  $\dots$ , 223? \_\_\_\_\_
- (53)  $3367 \times 42 =$  \_\_\_\_\_
- (54) The slope of the line passing through  $(1, -8)$  and  $(5, -8)$  is \_\_\_\_\_
- (55)  $62_{10} =$  \_\_\_\_\_ <sub>7</sub>
- (56) A set with 8 elements has how many 3-element subsets? \_\_\_\_\_
- (57)  $56 \times 19 =$  \_\_\_\_\_
- (58)  $3367 \times 51 =$  \_\_\_\_\_
- (59)  $\frac{2}{3}$  gallon = \_\_\_\_\_ cu. in.
- \*(60)  $142857 \times 39 =$  \_\_\_\_\_
- (61) If  $f(x) = 3x^2 - 17x - 11$  has two zeros  $p$  and  $q$ , then  $p + q =$  \_\_\_\_\_
- (62)  $99 \times 98 =$  \_\_\_\_\_
- (63) The total surface area of a cube with edge 7 yds is \_\_\_\_\_ sq. yds
- (64) If  $\tan(60^\circ) = a\sqrt{b}$ , then  $b =$  \_\_\_\_\_
- (65)  $.3\overline{6} =$  \_\_\_\_\_ (fraction)
- (66) The sum of the roots of  $6x^2 - 17x - 10 = 0$  is \_\_\_\_\_
- (67)  $\frac{1}{8}$  sq. mile = \_\_\_\_\_ acres
- (68) The acute angle formed by the hands of a clock at 2:14 is \_\_\_\_\_  $^\circ$
- (69) If  $\sqrt{27} + \sqrt{3} = \sqrt{x}$ , then  $x =$  \_\_\_\_\_
- \*(70)  $\sqrt[3]{124000} =$  \_\_\_\_\_
- (71) The odds of randomly choosing a consonant from the word *COTANGENT* is \_\_\_\_\_
- (72) The slope of the line passing through  $(-5, 9)$  and  $(2, 12)$  is \_\_\_\_\_
- (73)  $(a^2b)(a^2b^2)^2 =$  \_\_\_\_\_
- (74) If  $f(x) = 4x^3 - 10x^2 + x - 2$ , then  $f(3) =$  \_\_\_\_\_
- (75) If  $k$  is an integer, then  $i^{4k+6} =$  \_\_\_\_\_
- (76)  $(xyz)(x^2yz^3) \div (xyz)^2 =$  \_\_\_\_\_
- (77)  $16 \times 37 =$  \_\_\_\_\_
- (78) If  $2^x = 3$  and  $5^x = 7$ , then  $20^x =$  \_\_\_\_\_
- (79)  $992 \times 995 =$  \_\_\_\_\_
- \*(80) 32 miles = \_\_\_\_\_ yards