

# Middle School Number Sense Exam 030, 12/30/2017

- (1)  $4362 - 1997 =$  \_\_\_\_\_
- (2)  $5.22 + 2.17 + 4.11 =$  \_\_\_\_\_ (decimal)
- (3)  $987 + 995 + 996 + 989 =$  \_\_\_\_\_
- (4)  $28\% =$  \_\_\_\_\_ (fraction)
- (5)  $100 \div \frac{1}{25} =$  \_\_\_\_\_
- (6)  $\frac{9}{13} - \frac{3}{5} =$  \_\_\_\_\_ (fraction)
- (7)  $\frac{1}{3}$  of 19 is \_\_\_\_\_
- (8)  $\frac{1}{3}$  of 7 is \_\_\_\_\_
- (9)  $8 \times 7.5 =$  \_\_\_\_\_
- \*(10)  $27 \times 2288 =$  \_\_\_\_\_
- (11) 18 minutes = \_\_\_\_\_ hours
- (12)  $14 \times 31 + 14 \times 19 =$  \_\_\_\_\_
- (13)  $43 \times 6 =$  \_\_\_\_\_
- (14)  $.75 + \frac{1}{5} =$  \_\_\_\_\_
- (15)  $3.4\% =$  \_\_\_\_\_ (decimal)
- (16)  $800\% =$  \_\_\_\_\_ (decimal)
- (17) What is the greatest number that divides 16 and 40 with a remainder of 0? \_\_\_\_\_
- (18)  $65 \times 65 =$  \_\_\_\_\_
- (19)  $48 \times 68 =$  \_\_\_\_\_
- \*(20)  $333 \times 486 =$  \_\_\_\_\_
- (21) If 6 pens cost \$4.20 then 2 dozen pens cost \$ \_\_\_\_\_
- (22) If 3 pens cost \$3.15, then 10 pens cost \$ \_\_\_\_\_
- (23)  $78 - 93 =$  \_\_\_\_\_
- (24) The sum of the smallest 25 odd whole numbers is \_\_\_\_\_
- (25) 80% of 1300 is \_\_\_\_\_
- (26)  $900 \div 1.8 =$  \_\_\_\_\_
- (27) 200 minutes = \_\_\_\_\_ hours
- (28)  $53711 \div 4$  has a remainder of \_\_\_\_\_
- (29)  $12 \times 8\frac{7}{12} =$  \_\_\_\_\_
- \*(30)  $43 + 53 + 23 + 83 + 13 + 63 + 93 =$  \_\_\_\_\_
- (31)  $50 \times 4.8 =$  \_\_\_\_\_
- (32) The supplement of a  $64^\circ$  angle is \_\_\_\_\_  $^\circ$
- (33) If two dozen apples cost \$5.04, then six apples cost \$ \_\_\_\_\_
- (34)  $1 + 2 + 3 + \dots + 13 + 14 =$  \_\_\_\_\_
- (35) If  $-\frac{x}{6} - 11 = -13$ , then  $x =$  \_\_\_\_\_
- (36)  $68^2 - 32^2 =$  \_\_\_\_\_
- (37)  $9\frac{2}{5} \times 6\frac{2}{5} =$  \_\_\_\_\_ (mixed number)
- (38) If  $2x - 3 = -5 + x$ , then  $x =$  \_\_\_\_\_
- (39)  $84 \times 86 =$  \_\_\_\_\_
- \*(40)  $4\frac{5}{8} \times 2525 \div 36 =$  \_\_\_\_\_
- (41)  $\frac{1}{8}$  sq. mile = \_\_\_\_\_ acres
- (42) 18% of 46 is 9% of \_\_\_\_\_
- (43) The circumference of a circle with area  $49\pi$  is \_\_\_\_\_
- (44)  $\sqrt{10609} =$  \_\_\_\_\_
- (45)  $12! \div 11! =$  \_\_\_\_\_
- (46)  $7\frac{1}{3} \times 2\frac{1}{3} =$  \_\_\_\_\_ (mixed number)

- (47) A regular decagon has an interior angle of  
measure \_\_\_\_\_ degrees
- (48) If  $f(x) = -x^2 + 3$ , then  $f(-5) =$  \_\_\_\_\_
- (49) The number of diagonals that can be drawn from  
one vertex of a heptagon is \_\_\_\_\_
- \*(50)  $\pi^7 =$  \_\_\_\_\_
- (51)  $39 \times 41 =$  \_\_\_\_\_
- (52) If  $f(x) = 9x + 13$ , then  $f(11) - f(3) =$  \_\_\_\_\_
- (53) The number of diagonals that can be drawn from  
one vertex of a 15-gon is \_\_\_\_\_
- (54)  $\frac{9}{14} + \frac{14}{9} =$  \_\_\_\_\_ (mixed number)
- (55)  $4 + 11 + 18 + \dots + 53 =$  \_\_\_\_\_
- (56)  $\{s, a, m, p, l, e\} \cap \{s, p, a, c, e\}$  has \_\_\_\_\_ subsets
- (57) 8% of 17 is 2% of \_\_\_\_\_
- (58) If  $f(x) = \frac{2}{3}x + 6$ , then  $f(72) =$  \_\_\_\_\_
- (59)  $231_4 =$  \_\_\_\_\_ <sub>10</sub>
- \*(60)  $142857 \times 51 =$  \_\_\_\_\_
- (61) If a set  $A = \{p, a, r, k, s\}$ , set  $B = \{h, a, w, k, s\}$ ,  
then the number of elements in  $(A \cup B)$  + the number  
of elements in  $(A \cap B)$  is \_\_\_\_\_
- (62)  $35^2 + 47^2 =$  \_\_\_\_\_
- (63)  $1011 \times 1008 =$  \_\_\_\_\_
- (64)  $66\frac{2}{3} \times .27 =$  \_\_\_\_\_
- (65)  $0.1333\dots =$  \_\_\_\_\_ (fraction)
- (66) 2 cubic yards = \_\_\_\_\_ cubic feet
- (67) If  $\sqrt{50} + \sqrt{8} = \sqrt{x}$ , then  $x =$  \_\_\_\_\_
- (68) If  $\frac{a}{b} + \frac{b}{a} = 2\frac{25}{66}$ , where  $a$  and  $b$  are relatively prime,  
then the larger of  $a$  and  $b$  is \_\_\_\_\_
- (69) The slope of the line  $6x = 4 - 2y$  is \_\_\_\_\_
- \*(70)  $5\frac{4}{7} \times 2\frac{11}{15} \times 9\frac{2}{13} =$  \_\_\_\_\_
- (71)  $73^2 + 23^2 =$  \_\_\_\_\_
- (72) If  $34_b = 28_{10}$ , then  $b =$  \_\_\_\_\_
- (73)  $P, Q,$  and  $R$  are roots of  
 $f(x) = 3x^2 - 4x + 1$ , then  $f(3) =$  \_\_\_\_\_
- (74) The sum of the roots of  $6x^2 + x - 1 = 0$  is \_\_\_\_\_
- (75) The distance between the roots of  $|x - 7| = 5$   
is \_\_\_\_\_
- (76) The area of an equilateral triangle with  
side 2 is \_\_\_\_\_
- (77)  $27^2 + 68^2 =$  \_\_\_\_\_
- (78) 80 acres = \_\_\_\_\_ sq. miles
- (79)  $i^{13} =$  \_\_\_\_\_
- \*(80)  $12 \times 14 \times 16 =$  \_\_\_\_\_