

AD TESTING SERVICES
2011-2012 UIL NUMBER SENSE
PRACTICE TEST 1

UIL NUMBER SENSE
PRACTICE TESTS
FOR 2011-2012

- (1) $1102 - 876 =$ _____
- (2) $3007 + 7773 =$ _____
- (3) $\$11.62 + \$14.63 = \$$ _____
- (4) $2.375 =$ _____
- (5) $3\frac{3}{4} \times 6 =$ _____ (mixed number)
- (6) $6\frac{1}{8} \% =$ _____ (decimal)
- (7) $36^2 =$ _____
- (8) $1 + 3 \times 6 \div 9 - 12 =$ _____
- (9) $2012 \div 8 =$ _____ (mixed number)
- *(10) $1234 + 246 - 369 =$ _____
- (11) $1650 \div 50 =$ _____
- (12) $ML \div XXV =$ _____ (Arabic Numeral)
- (13) The arithmetic mean of 13, 10, 8, 12, 10, and 16 is _____ (decimal)
- (14) $5\frac{4}{7} + 3\frac{8}{14} =$ _____ (mixed number)
- (15) $.777777\dots =$ _____ (proper fraction)
- (16) $11^3 =$ _____
- (17) The number of positive integral divisors of 144 is _____
- (18) $96 \times 97 =$ _____
- (19) 2 gallons = _____ (pints)
- *(20) $315 \times 1087 \div 287 =$ _____
- (21) $9\frac{1}{9} \times 18\frac{1}{9} =$ _____ (mixed number)
- (22) The simple interest on \$240.00 at 4% for 3 months is \$ _____
- (23) If $f(x) = x^3 + 7x + 13$ then $f(12)$ is _____
- (24) $\{s, c, h, o, o, l\} \cap \{t, e, a, c, h, e, r\}$ has _____ distinct elements
- (25) $3^2 + 5^2 + 7^2 + 9^2 + 11^2 + 14^2 =$ _____
- (26) $13 \times 154 =$ _____
- (27) 0.02 kilograms = _____ centigrams
- (28) $15.96 \div 0.3 =$ _____ (decimal)
- (29) The product of the roots of $2x^2 + 4x = 6$ is _____
- *(30) $104 \times 108 + 9 \times 64 =$ _____
- (31) The diagonal of a square is $6\sqrt{7}$ inches. The area of this square is _____ sq. inches
- (32) The multiplicative inverse of 1.25 is _____
- (33) $1^2 + 2^3 + 3^4 + 4^5 =$ _____
- (34) $(11^2 + 8^3 + 7) \div 6$ has a remainder of _____
- (35) $0.666\dots - 0.41666\dots + 0.08333\dots =$ _____
- (36) How many integers less than 30 are relatively prime to 20? _____
- (37) A DVD player costs \$18.25. 6 DVD players cost \$ _____
- (38) The median of 15, 25, 35, and 27 is _____
- (39) If there are 8 elements in set A, 15 in set B, and 5 in $A \cap B$, then $A \cup B$ has _____ elements
- *(40) $25^4 =$ _____
- (41) $23_7 + 41_7 + 10_7 =$ _____₇
- (42) $5^5 \times 4^4 =$ _____
- (43) $211 \times 112 =$ _____
- (44) If $A \neq 0$ and $A^7 \div A^3 \times A^k = A^9$ then $k =$ _____
- (45) An enneadecagon has _____ sides
- (46) If $6^{(x-1)} = 1296$ then $6^x =$ _____
- (47) 12345k is divisible by 9. Find k. _____
- (48) The smaller leg of a 30° - 60° - 90° triangle is $3\sqrt{3}$ cm. The length of the other leg is _____ cm
- (49) $\frac{3}{7} + \frac{5}{18} =$ _____
- *(50) $16^4 \div 12^3 \times 3^3 =$ _____

- (51) Let $(12 + 6i)(6 - 3i) = a + bi$.
Find $a + b$. _____
- (52) $1 + 2^2 + 3^2 + 4^2 + 5^2 + \dots + 10^2 =$ _____
- (53) The largest root of $4x^2 - 3x - 1 = 0$
is _____
- (54) $\sqrt{207936} =$ _____
- (55) $33_8 \times 3_8 =$ _____₈
- (56) If two dice are tossed, what is the probability
the sum of the faces will be 5? _____
- (57) If $\log_x 25 + \log_x 9 = 2$, then $x =$ _____
- (58) $12^4 \div 7$ has a remainder of _____
- (59) The simplified coefficient of the xy^2 term in
the expansion of $(x - y)^3$ is _____
- *(60) $925 \times 555 \div 44 =$ _____
- (61) 506 feet/second = _____ miles/ hour
- (62) $\sqrt{11115556} =$ _____
- (63) $1 + 2 + 5 + 13 + \dots + 233 =$ _____
- (64) $[-6 \ 3] \times \begin{bmatrix} -4 \\ 8 \end{bmatrix} = [\text{_____}]$
- (65) $\sin 3\pi + \cos 5\pi + \tan 2\pi =$ _____
- (66) $\sin \frac{11\pi}{6} =$ _____
- (67) The Greatest Integer Function has $f(x) =$
 $[x^3]$ has a value of _____ for $f(\phi)$
- (68) $(456_8 + 144_8) \div 7$ has a remainder
of _____
- (69) $31^3 - 30^3 =$ _____
- *(70) $16 \times 26 \times 36 \times 46 =$ _____
- (71) Given $2652 \div 6\frac{4}{5} = 390$. Find $2652 \div 34$.

- (72) $f(x) = \log(5x - 6)$ has an asymptote
at $x =$ _____
- (73) The next term of 2, 3, 6, 10, 17, 28, ...
is _____
- (74) $\frac{1}{2} + \frac{1}{8} + \frac{1}{24} + \frac{1}{36} =$ _____
- (75) Change .45 base 6 to a base ten fraction

- (76) If the rectangular coordinates of the polar
coordinates $(4, \frac{5\pi}{4})$ are (x, y) ,
then $x \div y =$ _____
- (77) The minimum value of $y = x^2 + 6x - 317$ is

- (78) $\int_0^4 (3x^2 + 1)dx =$ _____
- (79) Let $5x + 4 \cong 3 \pmod{6}$, where $0 \leq x \leq 5$.
Find x . _____
- *(80) $9321 \div 6789 \times 4321 =$ _____

Number Sense Test 1 Answer Key

- | | | | |
|------------------------|------------------------|-----------------------|--------------------------|
| (1) 226 | (22) \$2.40 | (43) 23632 | (65) -1 |
| (2) 10780 | (23) 1825 | (44) 5 | (66) $-.5, -\frac{1}{2}$ |
| (3) \$26.25 | (24) 2 | (45) 19 | (67) 4 |
| (4) $273\frac{1}{2}$ | (25) 481 | (46) 7776 | (68) 3 |
| (5) $22\frac{1}{2}$ | (26) 2002 | (47) 3 | (69) 2791 |
| (6) .06125 | (27) 2000 | (48) 9 | *(70) 654452 - |
| (7) 1296 | (28) 53.2 | (49) $\frac{89}{126}$ | 723340 |
| (8) -9 | (29) -3 | *(50) $973 - 1075$ | (71) 78 |
| (9) $251\frac{1}{2}$ | *(30) $11218 - 12398$ | (51) 90 | (72) $\frac{5}{6}$ |
| *(10) $1056 - 1166$ | (31) 126 | (52) 385 | (73) 46 |
| (11) 33 | (32) $.8, \frac{4}{5}$ | (53) 1 | (74) $\frac{25}{36}$ |
| (12) 42 | (33) 1114 | (54) 456 | (75) $\frac{29}{36}$ |
| (13) 11.5 | (34) 4 | (55) 121 | (76) 1 |
| (14) $9\frac{1}{7}$ | (35) $\frac{1}{3}$ | (56) $\frac{1}{9}$ | (77) -326 |
| (15) $\frac{7}{9}$ | (36) 12 | (57) 15 | (78) 68 |
| (16) 1331 | (37) \$109.50 | (58) 2 | (79) 1 |
| (17) 15 | (38) 26 | (59) 3 | *(80) $5636 - 6229$ |
| (18) 9312 | (39) 18 | *(60) $11085 - 12250$ | |
| (19) 16 | *(40) $371094 -$ | (61) 345 | |
| *(20) $1134 - 1252$ | 410156 | (62) 3334 | |
| (21) $165\frac{1}{81}$ | (41) 104 | (63) 377 | |
| | (42) 800000 | (64) 48 | |