TruePath Academics
Elementary Number Sense Test

Directions: This is a ten-minute test. There are 80 problems. Solve accurately and quickly as many as you can in the order in which they appear. ALL PROBLEMS ARE TO BE SOLVED MENTALLY. Make no calculations with paper and pencil. Write only the answer in the space provided at the end of each problem. Problems marked with a (*) require approximate integral answers; any answer to a starred problem that is within five percent of the exact answer will be scored correct; all other problems require exact answers.

Stop - Wait for Signal!

(1) 47 - 33 = _____

(2) 199 + 534 = _____

(3) 540 ÷ 5 = _____

(4) 17 x 5 = _____

(5) 5 + 7 + 9 + ... + 17 = _____

(6) 25 + 9 - 15 = _____

(7) 15 + 16 + 17 = _____

(8) 90 - 13 - 7 = _____

(9) 25 x 16 = _____

*(10) 567 x 848 = _____

(11) 26 x 11 = _____

(12) Which digit is in the tens place in 652231.671?
_____

(13) 5 x 12 + 20 x 12 = _____

(14) 37 x 43 = _____

(15) 35011 ÷ 5 has a remainder of _____

(16) How many odd numbers are between 24 and 28?
_____

(17) $4x10^3 + 5x10^2 + 3x10^1 + 3x10^{(-1)}$ =
_____ decimal

(18) 101 x 77 = _____

(19) DL = _____ (Arabic numeral)

*(20) 393962 ÷ 251 = _____

(21) 128 x 50 = _____

(22) 12 + 18 + 24 + 30 + 36 + 42 = _____

(23) $\frac{1}{3}$ = _____ percent

(24) $\frac{1}{5}$ = _____ decimal

(25) Which is larger: 0.77 or $\frac{3}{4}$? _____

(26) 96 x 93 = _____

(27) 0.12 = _____ common fraction

(28) If 58 ? cost 87?, then 4 ? cost _____ ?

(29) $\frac{3}{8}$ x 32 = _____

*(30) 198 x 358 + 13 = _____

(31) 32 quarters = _____ nickels

(32) The largest prime number that can divide evenly into 236 is _____

(33) $9.75 minus 3 quarters = _____ $

(34) $\frac{8}{10} - \frac{30}{100}$ = _____

(35) $4\frac{3}{4}$ feet = _____ inches

(36) The LCM of 27 and 45 is _____

(37) 101 x 105 = _____

(38) $41\frac{1}{5}$ %= _____ common fraction

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(39) The ratio of ounces in 4 cups to 2 quarts is _____

*(40) 37.5% x 1197 = _____

(41) $\frac{1}{4} + \frac{1}{8}$ = _____ common fraction

(42) 6^3 = _____

(43) The side for a cube with volume 8 cm^3 is _____ cm

(44) $3^4 + 3^2$ = _____

(45) $12\frac{4}{7}$ weeks = _____ (days)

(46) $\sqrt{196}$ = _____

(47) The volume of a rectangular box that measures 24-ft by 10-ft by 4-ft is _____ ft^3

(48) 83 x 87 = _____

(49) If z = 8, then 56 + 4z = _____

*(50) 39 x 41 x 43 = _____

(51) What is the number, k, in the sequence: 0, 1, 8, 27, k, 125, . . .? _____

(52) The diameter of a circle with area 64π is _____

(53) $\frac{11}{8} + \frac{8}{11}$ = _____ mixed number

(54) If set A = {D, A, L, L, A, S} and set B = {T, E, X, A, S}, then how many elements are in A U B _____

(55) 31 (base 10) = _____ base 6

(56) 125 x 19 ÷ 5 = _____

(57) A right triangle has hypotenuse 17 in and one leg 15 in. Find its area. _____ in^2

(58) A right triangle has hypotenuse 10 and one leg 8. The other leg is _____

(59) A right triangle has legs 5 and 12. Find its perimeter. _____

*(60) 123 nickels = _____ cents

(61) (-16) + (-12) ÷ (-4) = _____

(62) $31^2 - 19^2$ = _____

(63) If a pair of dice are thrown, the probability that the sum of the dice equals 9 is _____

(64) 11 square feet = _____ square inches

(65) 23^2 = _____

(66) $9^5 \div 6$ has a remainder of _____

(67) How many vertices does a hexagon have? _____

(68) $\sqrt{361} - \sqrt{361}$ = _____

(69) $2\frac{1}{42} - \frac{7}{6}$ = _____

*(70) 265^2 = _____

(71) The additive inverse of $-\frac{15}{4}$ is _____

(72) A trapezoid has base 10 and 20, with altitude 16. Find its area. _____

(73) If 27% of 6 is $13\frac{1}{2}$ % of x, then x = _____

(74) If x + 39 > 49, then x > _____

(75) $24^2 + 12^2$ = _____

(76) $(6 + 8 + 10 + ... + 12)^2$ _____

(77) 24 x $16\frac{2}{3}$ %= _____

(78) What is the distance from negative 30 to positive 44 on the number line? _____

(79) $39^2 + 39$ = _____

*(80) $\sqrt{396900}$ = _____

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TruePath Academics Elementary Number Sense Test - Key

(1)	14	(21)	6400	(41)	3/8	(61)	-13
(2)	733	(22)	162	(42)	216	(62)	600
(3)	108	(23)	33 1/3	(43)	2	(63)	1/9
(4)	85	(24)	0.2	(44)	90	(64)	1584
(5)	77	(25)	0.77	(45)	88	(65)	529
(6)	19	(26)	8928	(46)	14	(66)	3
(7)	48	(27)	3/25	(47)	960	(67)	6
(8)	70	(28)	6	(48)	7221	(68)	0
(9)	400	(29)	12	(49)	88	(69)	6/7
*(10)	456776 - 504856	*(30)	67353 - 74441	*(50)	65320 - 72194	*(70)	66714 - 73736
(11)	286	(31)	160	(51)	64	(71)	15/4
(12)	3	(32)	59	(52)	16	(72)	240
(13)	300	(33)	9	(53)	2 9/88	(73)	12
(14)	1591	(34)	1/2	(54)	7	(74)	10
(15)	1	(35)	57	(55)	51	(75)	720
(16)	2	(36)	135	(56)	475	(76)	1296
(17)	4530.3	(37)	10605	(57)	60	(77)	4
(18)	7777	(38)	103/250	(58)	6	(78)	74
(19)	550	(39)	1/2	(59)	30	(79)	1560
*(20)	1492 - 1648	*(40)	427 - 471	*(60)	585 - 645	*(80)	599 - 661

Note: *(Number) x - y means an integer between x and y inclusive.

Fraction answers must be written as fractions, not decimals, unless the problem asks for a decimal.

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