The University of Texas Interscholastic League

Number-Sense Test, Series R-8

Contestant's Number.....

Contestant's Score.....

Contestants Read Directions Carefully Before Beginning Test

Don't Unfold This Sheet Until You Are Told to Begin

Directions: Do not turn this page until the person conducting the test gives the signal to begin. 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 star (*) require only approximate answers; any answer to a starred problem that is within five per cent of the exact answer will be scored correct; all other problems require exact answers.

Person conducting contest should explain these directions carefully to the contestants.

Stop—Wait for Signal

(1) 76+48+88= .....

(2) 76+48−89= .....

(3) 18×14= .....

(4) 48÷¾ = ...

(5) 49÷1¾= .....

(6) 15½×5= .....

(7) 155×5= .....

(8) 650÷16⅔= .....

(9) 24½÷7= .....

*(10) An expenditure of a billion dollars a year is equivalent to what expenditure per day? $.....

(11) 89% of $5000= $.....

(12) 50×63= .....

(13) 152×25= .....

(14) 152×75= .....

(15) Find the altitude of a triangle of area 283½ sq. in. and base 21 in. ..... in.

(16) Find the area of a square of perimeter 46 ft. ..... sq ft.

(17) Find the cost of a 17 pound turkey at 42¢ a pound. $.....

(18) Find the cost per pound of an 18 pound ham costing $10.62. $.....

(19) 283½÷10½= .....

*(20) A rocket travels 12,000 miles an hour. How many feet does it move in a second? .....

(21) 77 is 5% of what number? .....

(22) 283½÷21= .....

(23) Find the average of 28, 138, 41 and 93. .....

(24) 550÷12½= .....

(25) Convert 15,000 Italian lire into U.S. dollars by using the fact that 100 lire equal 16¢. $.....

(26) Find the greatest common divisor of 105, 385, and 273. .....

(27) Convert $9.60 into lire, using the data of problem number 25. ..... lire.

(28) 8¾+13⅞−16½= .....

(29) 16½−13⅞+8¾ = ...

*(30) Estimate the area of a circle of circumference 75 feet. ..... sq. ft.

(31) 5⅝×54= .....

(32) 7⅝×54= .....

(33) 4⅝×54= .....

(34) 5⅓×54= .....

(35) $4.60+$7.29−$9.88= $.....

(36) $4.44+$7.27−$9.88= $.....

(37) $4.53+$7.22−$9.74= $.....

(38) $4.61+$7.34−$9.94= $.....

(39) 5⅓×54½= .....

*(40) Estimate the length of the diagonal of a rectangle of base 4 feet and area 32 square feet. ..... ft.

(41) Find the fifth term of the sequence, 3⅛, 3½, 3⅞, 3⅝, ...

(42) $5\frac{7}{12}\times 84$= .....

(43) $5\frac{11}{12}\times 84$= .....

(44) (2¼×84)+(3⅛×84)= .....

(45) (84×1½)+(84×4⅝)= .....

(46) What per cent of $\frac{3}{10}$ is $\frac{3}{64}$? ..... %.

(47) 12^3= .....

(48) 16^2-14^2= .....

(49) 8^3-7^3= .....

*(50) Estimate the hypotenuse of a right triangle if the sides adjacent to the right angle are 8 inches and 12 inches. ..... in.

(51) $87 \times 87 =$ .....

(52) $87\frac{1}{2}\%$ of \$5200 = \$ .....

(53) How many feet in 3 miles? .....

(54) $88^2 =$ .....

(55) Which of the following is largest: 11/16, .66, 13/18? .....

.....

(56) $62\frac{1}{2}\%$ of 24% of a number is 135. What is the number? .....

.....

(57) Find the sum of \$8.36, \$11.76 and \$7.68. \$ .....

(58) $114 - 17\frac{1}{2} - 22\frac{7}{8} =$ .....

(59) $114 + 17\frac{1}{2} - 22\frac{7}{8} =$ .....

*(60) Estimate the area of a right triangle of base 8 in. and hypotenuse 14 in. .....sq. in.

(61) If one mile is equal to 1609 meters, how many miles in 6436 meters?

.....

(62) $161 \div 11\frac{1}{2} =$ .....

(63) $1610 \div 115 =$ .....

(64) 98% of 320 = ...

(65) 97% of 320 = ...

(66) $97\frac{1}{2}\%$ of 320 = ...

(67) $48\frac{3}{4}\%$ of 320 = ...

(68) 49% of 320 = ...

(69) $2\frac{1}{2}\%$ of 320 = ...

*(70) The distance between two cities is 955 kilometers. If one kilometer equals 3281 feet, find the distance in miles. .....miles.

(71) $841 - 268 - 473 + 137 =$ .....

(72) $841 - 268 + 473 - 137 =$ .....

(73) $375 \div 8\frac{1}{3} =$ .....

(74) $37\frac{1}{2} \div 8\frac{1}{3} =$ .....

(75) $13 \times 15\frac{1}{2} =$ .....

(76) $13\frac{1}{2} \times 15\frac{1}{2} =$ .....

(77) $13\frac{1}{2} \times 15\frac{1}{4} =$ .....

(78) $13\frac{1}{2} \times 1525 =$ .....

(79) $13\frac{1}{2} \times 15\frac{3}{4} =$ .....

*(80) Estimate the circumference of a circle of area 84 sq. ft. .....

..... ft.

HS Number Sense Series R-8 Test Answer Key

(1) 212	**(21) 1540**	**(41) 4**	**(61) 4**
(2) 35	**(22) 13.5**	**(42) 469**	**(62) 14**
(3) 252	**(23) 75**	**(43) 497**	**(63) 14**
(4) 64	**(24) 44**	**(44) 469**	**(64) 313.6**
(5) 28	**(25) 24.00**	**(45) 532**	**(65) 310.4**
(6) 77.5	**(26) 7**	**(46) $8\frac{1}{3}$**	**(66) 312**
(7) 775	**(27) 6000**	**(47) 1728**	**(67) 156**
(8) 39	**(28) 6.125**	**(48) 60**	**(68) 156.8**
(9) 3.5	**(29) 11.375**	**(49) 169**	**(69) 8**
***(10) 2602739.73-2876712.32**	***(30) 425.25-470**	***(50) 13.71-15.14**	***(70) 563.77-623.11**
(11) 4450.00	**(31) 315**	**(51) 7569**	**(71) 237**
(12) 3150	**(32) 423**	**(52) 4550.00**	**(72) 909**
(13) 3800	**(33) 261**	**(53) 15840**	**(73) 45**
(14) 11400	**(34) 288**	**(54) 7744**	**(74) 4.5**
(15) 27	**(35) 2.01**	**(55) $\frac{13}{18}$**	**(75) 201.5**
(16) 132.25	**(36) 1.83**	**(56) 20.25**	**(76) 209.25**
(17) 7.14	**(37) 2.01**	**(57) 27.80**	**(77) 205.875**
(18) .59	**(38) 2.01**	**(58) 73.625**	**(78) 20587.5**
(19) 27	**(39) $290\frac{2}{3}$**	**(59) 108.625**	**(79) 212.625**
***(20) 16720-18480**	***(40) 8.5-9.39**	***(60) 43.66-48.25**	***(80) 30.87-34.11**