Number Sense
Study Packet 2020

UNIVERSITY INTERSCHOLASTIC LEAGUE

This Number Sense packet contains tests and keys from **only** 2020 Invitational A, B and District. Region and State are not available.

This item is intended for High School grade levels.

The University Interscholastic League
Number Sense Test ● HS A ● 2020

Contestant's Number _____

Read directions carefully
before beginning test

DO NOT UNFOLD THIS SHEET
UNTIL TOLD TO BEGIN

Directions: Do not turn this page until the person conducting this 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 (*) 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.

The person conducting this contest should explain these directions to the contestants.

STOP -- WAIT FOR SIGNAL!

(1) $2020 + 110 - 20 =$ _____

(2) $1957 \div 19 =$ _____

(3) $3.8 \times 1.1 =$ _____ **(decimal)**

(4) $16^2 =$ _____

(5) $1\frac{4}{5} =$ _____ %

(6) $2\frac{2}{3} + 3\frac{5}{6} =$ _____ **(mixed number)**

(7) The LCM of 48 and 63 is _____

(8) $(5 + 10) - 15 \times 20 \div 25 =$ _____

(9) $3\frac{1}{4} \times 3\frac{3}{4} =$ _____

*(10) $1967 + 7196 + 6719 - 9671 =$ _____

(11) $18 \times 81 =$ _____

(12) 3 quarts $-$ 3 pints = _____ **cups**

(13) 20% of 40 minus 60 = _____

(14) $110220 \div 3$ has a remainder of _____

(15) If 4 ♥'s cost $2.14, then 6 ♥'s cost $ _____

(16) MCDLXIX = _____ **(Arabic Number)**

(17) 19 is what percent less than 25? _____%

(18) $48^2 =$ _____

(19) 24% of $137\frac{1}{2} =$ _____

*(20) $396 \times 501 - 2020 =$ _____

(21) How many subsets containing 2 or 3 elements does the set {f,o,u,r} have? _____

(22) $2\frac{1}{2}$ is the square root of _____ **(decimal)**

(23) $3^5 =$ _____

(24) $(110 \times 22 + 20) \div 8$ has a remainder of _____

(25) $1895 \times 5 + 25 =$ _____

(26) The sum of the solutions of $|x - 1| = 2$ is _____

(27) 213 base 4 is _____ **in base 10**

(28) Find the ratio of the perimeter of a 2" x 3" rectangle to its area. _____

(29) Let $(27x - 19)^2 = ax^2 + bx + c$. $a + b + c =$ ____

*(30) 2 hours 14 minutes 7 seconds = _____ **seconds**

(31) $(111)(13)(k) = 141,414$. $k =$ _____

(32) Let $87 = p + q$, where $p = q + 13$. Find q. _____

(33) Find the smallest integer k, where $k > 1$, such that $5k + 2$ is a perfect cube. _____

(34) $2.3444... =$ _____ **(mixed number)**

(35) $6^7 \div 7$ has a remainder of _____

(36) A regular unagon has how many sides? _____

(37) If $a = 3$, $9a^2 + 6ab + b^2 = 36$, and $b > -6$, then
b = _____

(38) The largest root of $(x - 2)^2 = \frac{4}{9}$ is _____

(39) $3\frac{1}{4}$ is _____ % greater than 3

*(40) $56 \times 67 \times 78 =$ _____

(41) $(44)^3 - (43)^3 =$ _____

(42) If $16 \times 4^6 \div 64^2 = 4^k$, then k = _____

(43) The circumference of a circle is 17π inches. Its
diameter is _____ inches

(44) How many lines exist given 7 coplanar points
such that no three points are collinear? _____

(45) $(i)^{31} = a\sqrt{b}$, where $a, b \in \{-1, 1\}$. Find $a + b$. ___

(46) $23_6 \times 4_6 + 15_6 =$ _____ $_6$

(47) The 4-digit number 23K7 is divisible by 11. k = ___

(48) The measure of an inscribed angle of a circle is m
times the measure of its intercepted arc. m = _____

(49) $(107)^3 =$ _____

*(50) $\sqrt{110220} =$ _____

(51) $5 + 7 + 12 + 19 + 31 + ... + 131 + 212 =$ _____

(52) $324 \times 123 =$ _____

(53) $3! + 4! - 5! =$ _____

(54) The first 4 digits of the decimal of $\frac{8}{45}$ is 0._____

(55) If $\log_9(x) = 1.5$, then $\log_3(x) =$ _____

(56) If $212_b = 173$, then $106_b =$ _____

(57) How many two-digit numbers exist such that their
digits are prime numbers? _____

(58) $(14)^2 + (28)^2 =$ _____

(59) The length of the altitude to the hypotenuse of a
$5' - 12' - 13'$ triangle is _____ ft

*(60) $(24)^4 = 25 \times$ _____

(61) $20 \times \frac{23}{24} =$ _____ (mixed number)

(62) Find the sum of all positive integers x such that
$4x + 3 \le 12$. _____

(63) $\cos^{-1}(\sin \frac{3\pi}{4}) =$ _____ π rad

(64) Change $0.0444..._8$ to a base 10 fraction. _____

(65) The shortest distance between $(-1, 1)$ and
$4x + 3y - 5 = 0$ is _____

(66) Round $(\sqrt{5} + \sqrt{3})$ to the nearest tenth. _____

(67) The sum of the reciprocals of all of the positive
divisors of 15 is _____

(68) How many positive integers less than or equal to 45
are relatively prime to 45? _____

(69) Two dice are rolled. The probability that the sum
is greater than 8 is _____ %

*(70) 500 sheets of paper are $2\frac{1}{8}$" thick. How many
sheets of paper are $\frac{1}{2}$" thick? _____

(71) $\lim\limits_{x \to \infty} \frac{x + 1}{2x^2 - 1} =$ _____

(72) Find the sum of the reciprocals of the first ten
triangular numbers. _____

(73) Let $f'(x) = 2x$ and $f(1) = 1$. Find $f(3)$. _____

(74) If $f(x) = 3x - 1$, then $f^{-1}[f(2)] =$ _____

(75) $12 + 3x \equiv 69 \pmod{36}$, where $0 \le x \le 9$. x = ____

(76) Find the sum of the squares of the roots of
$4x^2 - 27x - 7 = 0$. _____

(77) The first four digits of the decimal for $\frac{8}{33}$ is 0.____

(78) If $f(x) = 2x^3 + 3x^2 - 2x - 3$, then $f''(-1) =$ _____

(79) $314 \times 18 =$ _____

*(80) $1,150 \times 1,125 =$ _____

University Interscholastic League - Number Sense Answer Key HS • Invitation A • 2020
*number) x − y means an integer between x and y inclusive
NOTE: If an answer is of the type like $\frac{2}{3}$ it cannot be written as a repeating decimal

(1) 2,110

(2) 103

(3) 4.18

(4) 256

(5) 180

(6) $6\frac{1}{2}$

(7) 1,008

(8) 3

(9) 12.1875, $\frac{195}{16}$, $12\frac{3}{16}$

*(10) 5,901 — 6,521

(11) 1,458

(12) 6

(13) − 52

(14) 0

(15) $3.21

(16) 1,469

(17) 24

(18) 2,304

(19) 33

*(20) 186,558 — 206,194

(21) 10

(22) 6.25

(23) 243

(24) 0

(25) 9,500

(26) 2

(27) 39

(28) $\frac{5}{3}$, $1\frac{2}{3}$

(29) 64

*(30) 7,645 — 8,449

(31) 98

(32) 37

(33) 5

(34) $2\frac{31}{90}$

(35) 6

(36) 11

(37) − 3

(38) $\frac{8}{3}$, $2\frac{2}{3}$

(39) $\frac{25}{3}$, $8\frac{1}{3}$

*(40) 278,024 — 307,288

(41) 5,677

(42) 2

(43) 17

(44) 21

(45) − 2

(46) 155

(47) 8

(48) .5, $\frac{1}{2}$

(49) 1,225,043

*(50) 316 — 348

(51) 548

(52) 39,852

(53) − 90

(54) 1777

(55) 3

(56) 87

(57) 16

(58) 980

(59) $\frac{60}{13}$, $4\frac{8}{13}$

*(60) 12,608 — 13,934

(61) $19\frac{1}{6}$

(62) 3

(63) .25, $\frac{1}{4}$

(64) $\frac{1}{14}$

(65) 1.2, $\frac{6}{5}$, $1\frac{1}{5}$

(66) 4

(67) 1.6, $\frac{8}{5}$, $1\frac{3}{5}$

(68) 24

(69) $\frac{250}{9}$, $27\frac{7}{9}$

*(70) 112 — 123

(71) 0

(72) $\frac{20}{11}$, $1\frac{9}{11}$

(73) 9

(74) 2

(75) 7

(76) 49.0625, $\frac{785}{16}$, $49\frac{1}{16}$

(77) 2424

(78) − 6

(79) 5,652

*(80) 1,229,063 — 1,358,437

The University Interscholastic League
Number Sense Test ● HS B ● 2020

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(1) $20720 + 31420 =$ _____

(2) $31420 - 20720 =$ _____

(3) $\frac{3}{14} \div \frac{3}{8} =$ _____

(4) $4.3 \times 2.5 =$ _____

(5) $42\% =$ _____(proper fraction)

(6) $4\frac{1}{8} + 3\frac{3}{4} =$ _____ (mixed number)

(7) $31^2 =$ _____

(8) $4 + 5 \times (6 - 7) \div (8 - 9) =$ _____

(9) Which is larger, $\frac{3}{8}$ or .38 = _____

*(10) $1947 + 1875 + 1779 + 1648 =$ _____

(11) $9 \times 45 + 9 \times 36 =$ _____

(12) The mode of {1, 9, 4, 7, 1, 8, 7, 5, 1, 7, 7, 5} is _____

(13) $49^2 =$ _____

(14) $13 \times \frac{13}{15} =$ _____ (mixed number)

(15) $26052 \div 13 =$ _____

(16) $1892 \times 8 + 64 =$ _____

(17) $34 + 51 + 68 + 12 + 29 + 46 =$ _____

(18) The GCD of 18, 36, and 81 is _____

(19) $3\frac{1}{2}$ is the square root of _____ (decimal)

*(20) $314 \times 207 =$ _____

(21) $1 - |1 - 2| - |3 - 5| - 8 =$ _____

(22) 33% of $2.666... =$ _____

(23) $\frac{2}{3}$ of a gallon = _____ cubic inches

(24) The slope of the line $4x + 5y = 6$ is _____

(25) How many subsets containing 3 elements or 4 elements does the set {l,e,n,g,t,h} have? _____

(26) $(37)(13)(7)(5)(3) =$ _____

(27) 1A1 base 16 is _____ in base 10

(28) The ratio of the width to the length of a rectangle is 3:5. The perimeter is 64". The width is _____"

(29) Let $(56x - 41)^2 = ax^2 + bx + c$. $a + b + c =$ ____

*(30) $(\sqrt{1088} + \sqrt{728})(\sqrt{3598}) =$ _____

(31) $0.38555... =$ _____ (proper fraction)

(32) The number of prime divisors of 112 is _____

(33) If $2.555... \times k = 1$, then $k =$ _____

(34) Divide 83 into two parts such that the larger number is 25 more than the smaller number. The smaller number is _____

(35) 2.5 is _____ % greater than $\frac{4}{5}$

(36) $(39)^2 - (36)^2 =$ _____

(37) $9\frac{1}{3} \times 12\frac{2}{3} =$ _____

(38) The smallest root of $(2x - 1)^2 = \frac{1}{16}$ is _____

(39) $(11^5 - 1) \div 5$ has a remainder of _____

*(40) $24^4 \times 12^2 \div 12^4 =$ _____

(41) $(i)^{56} = a\sqrt{b}$, where a,b $\in \{-1,1\}$. Find a + b. ___

(42) The sum of the prime divisors of 96 is _____

(43) $77^2 - 63^2 =$ _____

(44) $.125 + .25 + .375 + .5 + .625 + .75 + .875 =$ _____

(45) $(201)^3 =$ _____

(46) The eighth triangular number is _____

(47) 12% of $266\frac{2}{3} =$ _____

(48) $_8C_6 + _8P_2 =$ _____

(49) $(51)^3 - (52)^3 =$ _____

*(50) $\sqrt{207314} =$ _____

(51) The length of the altitude to the hypotenuse of a 6', 8', 10' triangle is _____ ft

(52) Find the modulus of $(7 + 24i)^2$. _____

(53) The simplified coefficient of the third term of the expansion of $(x + 2y)^4$ is _____

(54) A triangle has sides of 12, 8 and x. x > _____

(55) $356_9 \div 6_9 =$ _____ 9

(56) If $201_b = 129$, then $301_b =$ _____

(57) The probability of randomly selecting a 2, 3, 5, or 7 from a standard deck of cards is _____ (fraction)

(58) $888 \times \frac{4}{37} =$ _____

(59) Given P coplanar points such that no three points are collinear, only 15 lines exist. P = _____

*(60) $17 \times 28 + 16 \times 34 =$ _____

(61) $1618 \times 14 =$ _____

(62) Given: 5, 8, 14, 23, 35, k, 68, ... k = _____

(63) $2\sin\frac{\pi}{12}\cos\frac{\pi}{12} =$ _____

(64) How many positive integers less than 26 are relatively prime to 26? _____

(65) The sum of the reciprocals of all of the positive divisors of 24 is _____

(66) $14 \times \frac{16}{19} =$ _____ (mixed number)

(67) The shortest distance between (5, 5) and $24x + 7y = 25$ is _____

(68) How many different 5-letter code words can be constructed using the letters STATE? _____

(69) How many triangles can be formed using any three vertices of a regular pentagon? _____

*(70) $(\pi + e)^5 =$ _____

(71) The first four digits of the decimal for $\frac{5}{23}$ base 6 is 0._____ base 6

(72) $f'(x) = -4$, f(1) = 5, find f(-3). _____

(73) $43 \times 47 + 4 =$ _____

(74) The minimum value of $y = 2(x - 3)^2 + 1$ is _____

(75) The graph of $y = \frac{x+3}{x^2+9}$ has _____ asymptote(s)

(76) Find the sum of the squares of the roots of $6x^2 + x - 5 = 0.$_____

(77) $\int_0^{10} (9 - x)\,dx =$ _____

(78) The tenth pentagonal number is _____

(79) $(\log_4 5)(\log_5 16) =$ _____

*(80) 340% of $(7.1 \times 8\frac{4}{5}) =$ _____

University Interscholastic League - Number Sense Answer Key HS ● Invitation B ● 2020

*number) x — y means an integer between x and y inclusive

NOTE: If an answer is of the type like $\frac{2}{3}$ it cannot be written as a repeating decimal

(1) **52,140**

(2) **10,700**

(3) $\frac{4}{7}$

(4) **10.75, $\frac{43}{4}$, $10\frac{3}{4}$**

(5) $\frac{21}{50}$

(6) $7\frac{7}{8}$

(7) **961**

(8) **9**

(9) **.38, $\frac{19}{50}$**

*(10) **6,887 — 7,611**

(11) **729**

(12) **7**

(13) **2,401**

(14) $11\frac{4}{15}$

(15) **2,004**

(16) **15,200**

(17) **240**

(18) **9**

(19) **12.25**

*(20) **61,749 — 68,247**

(21) **— 10**

(22) **.88, $\frac{22}{25}$**

(23) **154**

(24) **— .8, — $\frac{4}{5}$**

(25) **35**

(26) **50,505**

(27) **417**

(28) **12**

(29) **225**

*(30) **3,418 — 3,776**

(31) $\frac{347}{900}$

(32) **2**

(33) $\frac{9}{23}$

(34) **29**

(35) **212.5, $\frac{425}{2}$, $212\frac{1}{2}$**

(36) **225**

(37) $\frac{1064}{9}$, $118\frac{2}{9}$

(38) **.375, $\frac{3}{8}$**

(39) **0**

*(40) **2,189 — 2,419**

(41) **2**

(42) **5**

(43) **1,960**

(44) **3.5, $\frac{7}{2}$, $3\frac{1}{2}$**

(45) **8,120,601**

(46) **36**

(47) **32**

(48) **84**

(49) **— 7,957**

*(50) **433 — 478**

(51) **4.8, $\frac{24}{5}$, $4\frac{4}{5}$**

(52) **625**

(53) **24**

(54) **4**

(55) **54**

(56) **193**

(57) $\frac{4}{13}$

(58) **96**

(59) **6**

*(60) **969 — 1,071**

(61) **22,652**

(62) **50**

(63) **.5, $\frac{1}{2}$**

(64) **12**

(65) **2.5, $\frac{5}{2}$, $2\frac{1}{2}$**

(66) $11\frac{15}{19}$

(67) **5.2, $\frac{26}{5}$, $5\frac{1}{5}$**

(68) **60**

(69) **10**

*(70) **6,564 — 7,254**

(71) **1555**

(72) **21**

(73) **2,025**

(74) **1**

(75) **1**

(76) $\frac{61}{36}$, $1\frac{25}{36}$

(77) **40**

(78) **145**

(79) **2**

*(80) **202 — 223**

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Number Sense Test ● HS District ● 2020

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(1) $2328 - 232 =$ _____

(2) $543 \times (2 + 1) =$ _____

(3) $\frac{5}{16} \div \frac{5}{18} =$ _____

(4) $2328 \div 9$ has a remainder of _____

(5) The LCM of 24 and 42 is _____

(6) $\frac{1}{16} =$ _____ (decimal)

(7) $2884 \div 28 =$ _____

(8) $2 + 3 \times (2 - 8) \div (20) =$ _____

(9) The median of $\{1, 9, 4, 7, 1, 8, 7, 5, 1, 6\}$ is _____

*(10) $8232 - 823 + 232 - 2328 =$ _____

(11) $14 \times 312 =$ _____

(12) 43 quarters = $ _____

(13) MMCCCXXVIII $-$ XX = _____ (Arabic Numeral)

(14) $28^2 =$ _____

(15) 320 less 10% of 320 is _____

(16) $54^2 =$ _____

(17) $9\frac{2}{5} \times 5\frac{1}{3} =$ _____ (mixed number)

(18) 2 gallons + 1 quart $-$ 1 pint = _____ cups

(19) $2328 \div 6$ has a remainder of _____

*(20) $232 \times 820 \div 20 =$ _____

(21) $\sqrt[3]{2744} =$ _____

(22) $14 + 21 + 28 + 35 + 42 =$ _____

(23) $4^4 =$ _____

(24) Let $(91)(111)(k) = 80{,}808$. Find k. _____

(25) How many subsets containing 4 elements or 2 elements does the set $\{n,u,m,b,e,r\}$ have? _____

(26) $1893 \times 7 + 49 =$ _____

(27) Find the simple interest on $200.00 at a rate of 3% for 4 months. $_____

(28) $1A1_{13} =$ _____ $_{10}$

(29) Find the ratio of a square's area to its perimeter if the side length is 6". _____ in

*(30) $(\sqrt{1598} + \sqrt{1226})(\sqrt{5600}) =$ _____

(31) Let $(64x - 36)^2 = ax^2 + bx + c$. $a + b + c =$ _____

(32) $(18 \times 16 - 15 \times 13) \div 11$ has a remainder of _____

(33) Find the smallest integer k, where $k > 6$, such that $5k + 4$ is a perfect cube. _____

(34) The smallest root of $(x + 1)^2 = \frac{121}{225}$ is _____

(35) 1.25 is _____ % greater than $\frac{5}{8}$

(36) 232 = _____ $_8$

(37) Given the sequence 2,4,8,13,20,k,41,... . k = _____

(38) The measure of a central angle of a regular pentagon is $k\pi$ radians. k = _____

(39) $(13^5 + 1) \div 6$ has a remainder of _____

*(40) $\sqrt{250} \times \sqrt[3]{2750} =$ _____

(41) $21 \times 25 + 4 =$ _____

(42) The sum of the prime divisors of 78 is _____

(43) Round $(\sqrt{2} + \sqrt{7})$ to the nearest tenth. _____

(44) How many lines exist given nine coplanar points such that no three points are collinear? _____

(45) If $23_b = 13$, then $20_b =$ _____

(46) $34_8 - 5_8 \times 6_8 =$ _____ $_8$

(47) 18% of $433\frac{1}{3} =$ _____

(48) The midpoint of the line segment with endpoints (2, 3) and (— 2, 8) is (x, y). Find x + y. _____

(49) $(i)^{17} = a\sqrt{b}$, where a,b $\in$ {— 1, 1}. Find $\frac{a}{b}$. _____

*(50) $27 \times (\pi)^3 =$ _____

(51) $3 + 8 + 11 + 19 + 30 + ... + 128 + 207 =$ _____

(52) $(101)^3 =$ _____

(53) The sum of the coefficients of the second and third term when $(2x - y)^4$ is expanded is _____

(54) $10011010100_2 =$ _____ $_8$

(55) $8 + 2 + 0.5 + 0.125 + ... =$ _____

(56) $(16)^3 - (17)^3 =$ _____

(57) $_8P_2 + _8C_2 =$ _____

(58) The length of the altitude to the hypotenuse of a 9' — 40' — 41' triangle is _____ ft

(59) $555 \times \frac{5}{37} =$ _____

*(60) $18 \times 36 \times 54 \times 72 =$ _____

(61) $14 \times \frac{17}{20} =$ _____ (mixed number)

(62) How many different 5-letter code words can be constructed using the letters SENSE? _____

(63) $\cos(\frac{5\pi}{3}) =$ _____

(64) 7531 x 18 = _____

(65) The shortest distance between (— 2, — 2) and $24x + 7y - 8 = 0$ is _____

(66) How many positive integers less than 50 are relatively prime to 50? _____

(67) Find the sum of all positive integers x such that $2x + 3 \le 28$. _____

(68) Find the sum of the reciprocals of the first twenty-one triangular numbers. _____

(69) Two dice are rolled. The odds that the sum of the top faces is less than 6 is _____

*(70) $749 \times 66\frac{2}{3}\% \times .625 =$ _____

(71) The first four digits of the decimal for $\frac{25}{50}$ base 6 is 0._____ base 6

(72) If $f(x) = 7 + \frac{2x - 5}{3}$, then $f^{-1}(11) =$ _____

(73) Let $f'(x) = 14x - 5$ and $f(-1) = 9$. Find f(0). _____

(74) The minimum value of $y = 8(x + 4)^2 + 1$ is _____

(75) Find k, if $\begin{vmatrix} 1 & 3k \\ 6 & 10 \end{vmatrix} = 15$. _____

(76) The sum of the critical values of $f(x) = x^3 - 3.5x^2 + 2x - 1.5$ is _____

(77) The first four digits of the decimal for $\frac{7}{18}$ is 0.____

(78) The third octagonal number is _____

(79) $(\log_8 9)(\log_9 256) =$ _____

*(80) $2,125 \times 2,175 =$ _____

DO NOT DISTRIBUTE TO STUDENTS BEFORE OR DURING THE CONTEST

University Interscholastic League - Number Sense Answer Key HS ● District ● 2020
*number) x — y means an integer between x and y inclusive
NOTE: If an answer is of the type like $\frac{2}{3}$ it cannot be written as a repeating decimal

(1) 2,096

(2) 1,629

(3) 1.125, $\frac{9}{8}$, $1\frac{1}{8}$

(4) 6

(5) 168

(6) .0625

(7) 103

(8) 1.1, $\frac{11}{10}$, $1\frac{1}{10}$

(9) 5.5, $\frac{11}{2}$, $5\frac{1}{2}$

*(10) 5,048 — 5,578

(11) 4,368

(12) $10.75

(13) 2,308

(14) 784

(15) 288

(16) 2,916

(17) $50\frac{2}{15}$

(18) 34

(19) 0

*(20) 9,037 — 9,987

(21) 14

(22) 140

(23) 256

(24) 8

(25) 30

(26) 13,300

(27) $2.00

(28) 300

(29) 1.5, $\frac{3}{2}$, $1\frac{1}{2}$

*(30) 5,332 — 5,892

(31) 784

(32) 5

(33) 12

(34) $-\frac{26}{15}$, $-1\frac{11}{15}$

(35) 100

(36) 350

(37) 29

(38) .4, $\frac{2}{5}$

(39) 2

*(40) 211 — 232

(41) 529

(42) 18

(43) 4.1, $\frac{41}{10}$, $4\frac{1}{10}$

(44) 36

(45) 10

(46) — 2

(47) 78

(48) 5.5, $\frac{11}{2}$, $5\frac{1}{2}$

(49) — 1

*(50) 796 — 879

(51) 534

(52) 1,030,301

(53) — 8

(54) 2324

(55) $\frac{32}{3}$, $10\frac{2}{3}$

(56) — 817

(57) 84

(58) $\frac{360}{41}$, $8\frac{32}{41}$

(59) 75

*(60) 2,393,453 —
2,645,395

(61) $11\frac{9}{10}$

(62) 30

(63) .5, $\frac{1}{2}$

(64) 135,558

(65) 2.8, $\frac{14}{5}$, $2\frac{4}{5}$

(66) 20

(67) 78

(68) $\frac{21}{11}$, $1\frac{10}{11}$

(69) $\frac{5}{13}$

*(70) 297 — 327

(71) 3222

(72) 8.5, $\frac{17}{2}$, $8\frac{1}{2}$

(73) — 3

(74) 1

(75) $-\frac{5}{18}$

(76) $\frac{7}{3}$, $2\frac{1}{3}$

(77) 3888

(78) 21

(79) $\frac{8}{3}$, $2\frac{2}{3}$

*(80) 4,390,782 —
4,852,968