Elementary Calculator #2

2014-2015

General Directions

This test will last for 30 minutes. There are 80 problems on the test.

Write all of your answers using three significant digits.
  Correct forms include: 14.5, 145, 145. , 1.45 x 10, 1.45 x 10^7
  Incorrect forms include: 14.50, 1.45(10)³, 1.450 x 10², 1.45E5
  Plus or minus one digit error in the third significant digit is OK.

For word problems, use three significant digits unless the answer blank calls for INT (which means integer) or unless the answer involves money (round to the nearest penny).

Scoring: All problems correctly answered are worth 5 points. Four points will be subtracted for all misses or skips <u>before</u> the last problem attempted.
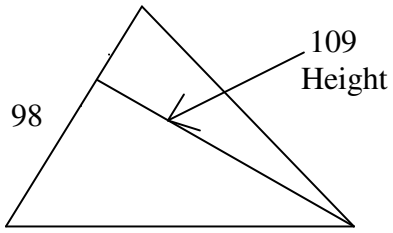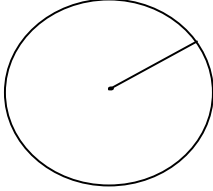
ELEMENTARY CALCULATOR 2014-2015

TEST #2

1.   4251 + 9012 -- 1=_____

2.   2015 – 406 + 1027 ------------------------------------ 2=_____

3.   769120 + 362 --- 3=_____

4.   34 x 76 x 98 --- 4=_____

5.   820331– 206550 – 320415 ---------------------------- 5=_____

6.   809 + 3496 + 892 – 5020 ----------------------------- 6=_____

7.   80240 – 67 – 45702 ----------------------------------- 7=_____

8.   46191 – 267 x 45 -------------------------------------- 8=_____

9.   831 x 439 x 205 --- 9=_____

10.   (193 + 657) x (67 + 507) ---------------------------- 10=_____

11.   Hailey and Katelyn sometimes buy their lunch at school
        and sometimes they take their lunch to school. The
        school lunch costs $2.15. In the month of October, Katelyn
        bought lunch 12 times and Hailey bought lunch 11 times.
        How much did they spend on lunch in October?   11= $_____

12.   Rylie played baseball with her younger brother, Wesley.
        She tossed 18 pitches to him. He made contact with his
        bat on 7 pitches. What fraction of the pitches did he hit? 12=_____

13.   Bryan deposited $22,590.00 in an investment account.
        At the end of one year, he gained $1,231.58 in returns on
        the investment. At the end of the year, what rate of return
        did this represent on his investment?   13= _____%

14.   0.2015 + 0.2015 + 0.2015 ------------------------------ 14=_____

15.   56³ – 93.080 x 34.00009 -------------------------------- 15=_____

16.   68.34 + 4.2000 + 71.025 ------------------------------- 16=_____

17.   [97 + (803 – 47)] + 31(3.62 + 0.90810) --------------- 17=_____

18.   (865 – 12)(902 – 7.33 x 45) + 91³ --------------------- 18=_____

19.   0.584 x 87.61 x 8.9010 --------------------------------- 19=_____

20.   2014 x 2014 – 114 x 2014 ------------------------------ 20=_____

21.   .0809 + 576 x 4¾ ------------------------------------- 21=_____

22.   9880 [5½ + ¾] ------------------------------------- 22=_____

23.   0.31415 + 0.92 – 8π x 9.00002 ------------------------ 23=_____

24.   Lara worked at the hospital for eight days in September.
        What fraction of the days in September did she work?

                                                                24=_____

25.   Allyson took a vacation to San Francisco with two college
        friends. She flew 771 miles from Austin to Denver. From
        Denver she flew 921 miles to San Francisco. On the return
        trip, she flew to Denver and then back to Austin. What
        was the total mileage she flew on her vacation?   25= _____

26.   Nathan and Rick play on a recreational soccer team.
         During an 8 game season, their team averaged exactly
         2.625 goals per game. How many goals did their soccer
         team score in the 8 game season?

                                                                26= _____ int.

27. $[(229 + 1) + 0.03637] (.076 / .772) + 8.3371101$ --------- 27=_____

28. $\sqrt{80912} + 37.2 + \sqrt{68155}$ ------------------------------------- 28=_____

29. $(907 - 31.7) + 7902 - 6423$ ---------------------------------- 29=_____

30. $\dfrac{\sqrt{56298}}{4.2318} + \sqrt[4]{24672}$ -------------------------------------- 30=_____

31. $7098 + 27 \times 54 - 9064 + 3992 + 6.2$ ----------------------- 31=_____

32. $7098 + 27 + 54 \times 9064 + 3992 + 6 \times 2$ --------------------- 32=_____

33. $(2015 - 2015) + 9087 - 88$ -------------------------------- 33=_____

34. $\dfrac{78904.34}{2.1076} + 83.727$ -------------------------------------- 34=_____

35.   On her calculator test, Ella stopped working after she
       completed problem #71. She missed 3 problems and
       skipped 2 problems. What was her score on the test?   35=_____ int.

36. 754^{2027} 36=_____

TRIANGLE	CIRCLE
109 Height	
98	
121	RADIUS = ?
AREA =?	CIRCUMFERENCE = 147.65
37=_____	38=_____

39. $(1776 + 18.63)^2$ --- 39=_____

40. $\sqrt{76.45 + 83.8} - 35.98 + 1.701^3$ -------------------------------- 40=_____

41. $(98 - 44.51) - 915 + 4019$ -- 41=_____

42. $763 + 7.921^2 + \dfrac{\sqrt{56.239}}{\sqrt[5]{68923}}$ --- 42=_____

43. $20152014 - 9.572$ --- 43=_____
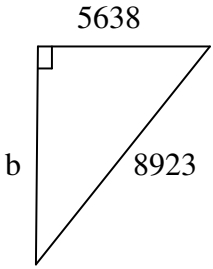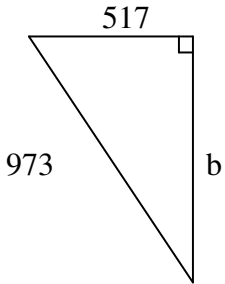
44. $37^3 - 2014 - 6.83 - 8710 - 197$ -------------------------------- 44=_____

45. $490220 \div 73 \div 54$ --- 45=_____

46. $\dfrac{\sqrt{56299}}{\sqrt{782.57}} - 34.20111$ --------------------------------------- 46=_____

47. Subtract the cube root of 489 from the square of 92. Now
     add 365. Now decrease this result by the square of 84.
     What is the final result of the calculation?   -------------- 47=_____

48. Four consecutive positive odd integers (whole numbers)
     are added together. The sum of the four integers is 3192.
     What is 8 more than the smallest of the four integers?------- 48=_____ int.

RIGHT TRIANGLE	RIGHT TRIANGLE
5638	517
b 8923	973 b
Length of side b = ?	Perimeter of triangle = ?
49=_____	50=_____

51. $\sqrt[5]{201414} + 1952^4 + 62 + \pi^3$ ----------------------------------- 51=_____

52. $(32! + 5!) + 357.34 + 27!$ ------------------------------------ 52=_____

53. $(2014 - 803.25)^2$ -- 53=_____

54. $(795 + 307)^2 + Ln(e)$ -- 54=_____

55. $8093 - 761 + \sqrt{9083}$ --- 55=_____
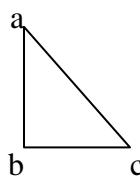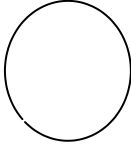
56. $2014 - (\sqrt{1024})^2 - 1492 + 1492$ --------------------------- 56=_____

57. $9245 + \sqrt{14400} + 92 \times 25$ ------------------------------------ 57=_____

58. (deg) $\tan(34°) + 12\cos(54°)$ --------------------------------- 58=_____

59.   Jan drove from Nacogdoches to Killeen in 4.25 hours.
       Her odometer read 45,902 when she left Nacogdoches
       and read 46,091 when she arrived in Killeen. What
       was her average speed in miles per hour for the trip?

                                                              59=_____

60.   Tom painted 40 linear feet of a 6-foot fence in 4.25 hours.
       Huck painted 40 linear feet of a 6-foot fence in 5.2 hours.
       If they worked together on 80 linear feet of 6-foot fence, how
       long should it take them to paint the 80 linear feet?

                                                              60=_____

RIGHT TRIANGLE AND CIRCLE

a

$ac = 84.5$ $bc = 56.3$

b   c   radius = 2/3 x bc

Total perimeter
of both shapes
is ??

61=_____

SEMICIRCLE

Area of semicircle = 873

Diameter = ?

62=_____

63. $14! + 74{,}562 + 53!$ --- 63=_____

64.   (deg) $\sin(57°) + 8\tan(22°)$ ---------------------------------- 64=_____

65. $2014\pi^2 + 807 + 51e$ -- 65=_____

66.   (rad) $\sin(7\pi) + \pi$ -- 66=_____

67. $8! + 4092 - \pi(3.1415926)$ --------------------------------- 67=_____
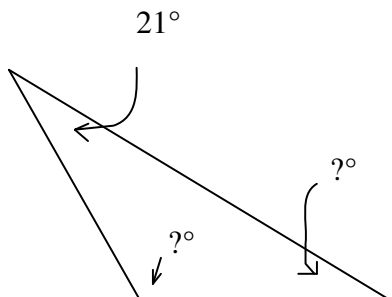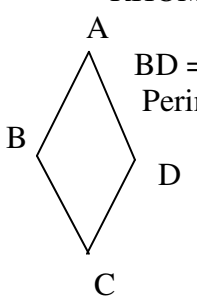
68.   (deg) $\tan(32°) + \cos(48°)$ ----------------------------------68=_____

69. $(88.7 + 31.75)^{8.201357}$ --------------------------------------- 69=_____

70.   (rad) $\sin(8\pi + 2\pi) + 2015$ ---------------------------------- 70=_____

71.   Rylie and Katelyn started kindergarten this year. They
       both bought crayons for their school supplies. Rylie
       bought a 64 crayon pack. Katelyn purchased a 48 crayon
       pack. Before school started, they examined their crayons
       and noticed that every 8th crayon was a shade of red.
       What fractional part of their crayons was a shade of red?-- 71= _____

72.   On the number line, how far is it from negative 367 to
       positive 832?   -- 72=_____ int.

ISOSCELES TRIANGLE	RHOMBUS ABCD
21° ?° ?°	A BD = 18 Perimeter = 94.26 B D C
Measure of the larger missing angle? 73=_____	Area of the rhombus? 74=_____

75.   Log(98246) --- 75=_____

76.   Ln(54.6 + 92.3528) -- 76=_____

77. $2014^{7.91} + 83^{2.48}$ --- 77=_____

78. $Log(10^{835}) + Log(10^{47})$ -- 78=_____

79. $1776 + e^{1776}$ -- 79=_____

80.   55 + 57 + 59 + 61 + … + 195 + 197 + 199 ------------------ 80=_____

Answers may be in either form. Answers may vary up or down 1 for the third digit, except on integer answers.

1) 1.33×10^4	13,300		42) 8.27×10^2	827
2) 2.64×10^3	2,640		43) 2.02×10^7	20,200,000
3) 7.69×10^5	769,000		44) 3.97×10^4	39,700
4) 2.53×10^5	253,000		45) 1.24×10^2	124
5) 2.93×10^5	293,000		46) -2.57×10^1	-25.7
6) 1.77×10^2	177		47) 1.77×10^3	1,770
7) 3.45×10^4	34,500		48)	803 (int. only)
8) 3.42×10^4	34,200		49) 6.92×10^3	6,920
9) 7.48×10^7	74,800,000		50) 2.31×10^3	2,310
10) 4.88×10^5	488,000		51) 1.45×10^{13}	
11)	$49.45		52) 2.63×10^{35}	
12) 3.89×10^{-1}	.389		53) 1.47×10^6	1,470,000
13) 5.45×10^0	5.45		54) 1.21×10^6	1,210,000
14) 6.05×10^{-1}	.605		55) 7.43×10^3	7,430
15) 1.72×10^5	172,000		56) 9.90×10^2	990
16) 1.44×10^2	144		57) 1.17×10^4	11,700
17) 9.93×10^2	993		58) 7.73×10^0	7.73
18) 1.24×10^6	1,240,000		59) 4.45×10^1	44.5
19) 4.55×10^2	455		60) 4.68×10^0	4.68
20) 3.83×10^6	3,830,000		61) 4.40×10^2	440
21) 2.74×10^3	2,740		62) 4.71×10^1	47.1
22) 6.18×10^4	61,800		63) 4.27×10^{69}	
23) $- 2.25 \times 10^2$	- 225		64) 4.07×10^0	4.07
24) 2.67×10^{-1}	.267		65) 2.08×10^4	20,800
25) 3.38×10^3	3,380		66) 3.14×10^0	3.14
26)	21 (int. only)		67) 4.44×10^4	44,400
27) 3.10×10^1	31.0		68) 1.29×10^0	1.29
28) 5.83×10^2	583		69) 1.16×10^{17}	
29) 2.35×10^3	2,350		70) 2.02×10^3	2,020
30) 6.86×10^1	68.6		71) 1.25×10^{-1}	.125
31) 3.49×10^3	3,490		72)	1,199 (int. only)
32) 5.01×10^5	501,000		73) 1.38×10^2	138
33) 9.00×10^3	9,000		74) 3.92×10^2	392
34) 3.75×10^4	37,500		75) 4.99×10^0	4.99
35)	310 (int. only)		76) 4.99×10^0	4.99
36) 2.70×10^{5832}			77) 1.36×10^{26}	
37) 5.34×10^3	5,340		78) 8.82×10^2	882
38) 2.35×10^1	23.5		79) 2.03×10^{771}	
39) 3.22×10^6	3,220,000		80) 9.27×10^2	927
40) -1.84×10^1	-18.4			
41) 3.16×10^3	3,160			