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Do NOT unfold this paper until  
the Contest Director  
gives you permission to do so!

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**THE UNIVERSITY INTERSCHOLASTIC LEAGUE**

# **Slide Rule Contest**

**Number 107**

**Conference:** .....

**Contestant's Serial Number:** .....

**Date of Contest:** .....

**Location of Contest:** .....

**Contestant's Net Score:** .....

THE UNIVERSITY INTERSCHOLASTIC LEAGUE  
DISTRICT SLIDE RULE CONTEST  
Number 107

Instructions: Place your answers in blanks provided to the right of each problem. Be sure to indicate the position of the decimal in your answer. Any problem that is skipped will be counted wrong.

1.  $3.84 \times 0.0127$  equals -----> .....
2.  $63.2 \times 7.37$  equals -----> .....
3.  $91.7 \times 0.316$  equals -----> .....
4.  $0.0817 \times 0.326$  equals -----> .....
5.  $43.7 \times 331$  equals -----> .....
6.  $\frac{7.93 \times 387}{3.18}$  equals -----> .....
7.  $\frac{31.5 \times 304}{27.6}$  equals -----> .....
8.  $\frac{47.2 \times 7.42}{427}$  equals -----> .....
9.  $\frac{3.82 \times 4.95}{7.62}$  equals -----> .....
10.  $\frac{167 \times 991}{343}$  equals -----> .....
11.  $\frac{187 \times \sqrt{712}}{0.376}$  equals -----> .....
12.  $\frac{371 \times 0.0172}{3/32}$  equals -----> .....
13.  $\frac{0.127 \times 331 \times 0.0421}{904 \times 8.73}$  equals -----> .....
14.  $\frac{804 \times 9.61}{317 \times 5.07 \times 121}$  equals -----> .....
15.  $\frac{37\pi \times 976}{3,180}$  equals -----> .....
16.  $\frac{(917)^2 \times \sqrt{370}}{\sqrt{114} \times (321)^2}$  equals -----> .....
17.  $\frac{217 \times (910)^2}{114 \times \sqrt{814}}$  equals -----> .....

18.  $\frac{(0.216)^2 \times \sqrt{306}}{940}$  equals -----> .....
19.  $\frac{(317)^2 \times \sqrt{613}}{692 \times 0.402}$  equals -----> .....
20.  $\frac{3\pi \times (121)^2}{\sqrt{511} \times 88.1}$  equals -----> .....
21.  $\frac{302 \times \sqrt{171} \times 64.2}{(191)^2 \times 0.0173}$  equals -----> .....
22.  $\frac{(37\pi)^3 \times 94.1}{318 \times \sqrt[3]{604}}$  equals -----> .....
23.  $\frac{\sqrt[3]{19\pi} \times 0.127}{\sqrt{716} \times 0.0231 \times 24.1}$  equals -----> .....
24.  $\frac{\sqrt{52.1} \times 0.00126 \times 13.0}{171 \times \sqrt[3]{175} \times 321}$  equals -----> .....
25.  $\frac{\sqrt{(61.2)^3}}{142 \times \sqrt[3]{(21.2)^2}}$  equals -----> .....
26.  $\frac{\sqrt[3]{311} \times \sqrt[3]{51.7}}{\sqrt{304}}$  equals -----> .....
27.  $\frac{(193)^2 \times \sqrt[3]{0.135}}{\sqrt{711} \times (19.1)^3}$  equals -----> .....
28.  $\frac{(304)^2 \times \sqrt[3]{71.2}}{\sqrt{216} \pi}$  equals -----> .....
29.  $\frac{913 \times (17.1)^2 \times \sqrt{7.04}}{\sqrt{317} \times (1.02)^3}$  equals -----> .....
30.  $\frac{\sqrt{\pi} \times \sqrt[3]{(11.1)^2} \times 194}{(\sqrt{4.11})^2 \times 9.88}$  equals -----> .....
31.  $\sqrt[3]{(70.2)^2 \times \pi}$  equals -----> .....
32.  $\sqrt{\frac{88 \times 4.1 \pi^2}{31 \times \sqrt{0.317} \times (5.21)^2}}$  equals -----> .....

$$33. \frac{321 \times \sqrt{871} \times (24.1)^2}{\sqrt{8.71}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$34. \frac{(117)^2 \times \pi^3 \times (94.6)^2}{(0.123)^3} \text{ equals } \longrightarrow \dots\dots\dots$$

$$35. \sqrt{\frac{\sqrt{4.35} \times (51.7)^2 \times \sqrt{37.4}}{\sqrt{9.21} \times \pi \times (1.03)^2}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$36. \frac{\sqrt{618}}{\sqrt[3]{853}} \times \frac{\pi^2}{62.9} \times \frac{\sqrt[3]{74.6}}{\sqrt{9.13}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$37. \sqrt[3]{0.0393} \times \left(\frac{395}{537}\right)^3 \times \sqrt{4.68} \text{ equals } \longrightarrow \dots\dots\dots$$

$$38. \sqrt[3]{\frac{1}{17\pi} \times \sqrt{0.393} \times \frac{1}{\sqrt{59.1}}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$39. \frac{(18)^3 \times 0.00000171}{0.0824 \times (0.011)^2 \times \sqrt[3]{518}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$40. \sqrt[3]{(0.0000385)^2} \times \left(\frac{4.18}{9.40}\right)^3 \text{ equals } \longrightarrow \dots\dots\dots$$

$$41. \sqrt[3]{\frac{(21.7)^2}{\sqrt{803}}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$42. \frac{\sqrt{750\pi} \times \pi \times 3.14 \times (41.3)^2}{3.16 \times 5.27} \text{ equals } \longrightarrow \dots\dots\dots$$

$$43. \frac{\sqrt{717} \times \sqrt{\frac{169}{(48)^2}}}{\frac{1}{\sqrt{919}} \times \sqrt[3]{25.7}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$44. \left(\sqrt[3]{\frac{\sqrt{391 \times 0.251}}{\sqrt[3]{91.3}}}\right)^2 \text{ equals } \longrightarrow \dots\dots\dots$$

$$45. \frac{9.68 \times \sqrt{0.0000713} \times \sqrt[3]{316}}{\sqrt{61.5}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$46. \frac{(311)^2 \times \sqrt{9.04} \times (318)^3}{\sqrt[3]{71.6} \times 435\pi} \text{ equals } \longrightarrow \dots\dots\dots$$

$$47. \frac{(89.2)^3 \times \sqrt{\sqrt{91.6}}}{\sqrt{(11.3)^2}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$48. \frac{\sqrt{\frac{513}{318}} \times \pi^2 \times 0.00000318}{(311)^2 \times 813} \text{ equals } \longrightarrow \dots\dots\dots$$

$$49. \frac{(9.32)^2 \times \sqrt{8.71}}{\sqrt[3]{7.86} \times 4.55} \times \frac{4}{\pi} \text{ equals } \longrightarrow \dots\dots\dots$$

$$50. \sqrt[3]{\left(\frac{8820}{612000}\right)^2} \text{ equals } \longrightarrow \dots\dots\dots$$

$$51. 0.0765 \times \frac{(3.11)^2 \times 98.7}{\sqrt{20.4} \times 181} \text{ equals } \longrightarrow \dots\dots\dots$$

$$52. \frac{\sqrt[3]{0.00000321}}{\sqrt[3]{\pi^2}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$53. \frac{(3.11)^2 \times \sqrt{9 \times 41} \times \sqrt{5.12}}{88.0 \times 13.2} \text{ equals } \longrightarrow \dots\dots\dots$$

$$54. \frac{\frac{\sqrt{948} \times \sqrt{112} \times \sqrt{103}}{\sqrt[3]{406}}}{\frac{\sqrt[3]{114}}{\sqrt{0.0171} \times \sqrt{0.184}}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$55. \sqrt{\frac{942}{315}} \times \sqrt[3]{\frac{304}{115}} \times 0.0183 \text{ equals } \longrightarrow \dots\dots\dots$$

$$56. \left[ \frac{\sqrt[3]{927} \times \sqrt{121}}{304 \times \sqrt{156} \times (5.07)^3} \right]^2 \text{ equals } \longrightarrow \dots\dots\dots$$

$$57. \frac{407}{816} \times \frac{1}{8.91} \times \left(\frac{311}{\pi}\right)^3 \times (16.1)^2 \text{ equals } \longrightarrow \dots\dots\dots$$

$$58. \frac{\sqrt{866 \times 7.59}}{\sqrt[3]{26.5 \times 93.7 \times 6.44}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$59. \frac{\sqrt{\frac{300}{490}} \times \sqrt{95}}{\sqrt{18}} \times \left(\frac{95}{18\pi}\right)^2 \text{ equals } \longrightarrow \dots\dots\dots$$

$$60. \left( \sqrt{\frac{8.84 \pi}{\sqrt{8.84 \pi}}} \right)^3 \times \left( \sqrt{\frac{91.7 \pi}{\sqrt{9170 \pi}}} \right)^3 \text{ equals } \longrightarrow \dots\dots\dots$$

$$61. \frac{(318 \times 9.35)^2}{\sqrt[3]{574 \times 36.8 \times 75.9}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$62. 38.7 \times \sqrt[3]{\frac{(0.0327)^2}{439}} \times 3.71 \text{ equals } \longrightarrow \dots\dots\dots$$

$$63. \sqrt[3]{3.71} \times \sqrt{84.5} \times \frac{\sqrt{7.11}}{\sqrt[3]{1.17}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$64. \frac{\sqrt[3]{318 \pi^2 \times \pi^2}}{\sqrt{62.9 \times (0.384)^2 \times 2.80}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$65. \sqrt{\sqrt[3]{\frac{29 \times \sqrt{0.83}}{608 \times \sqrt{83.0}}}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$66. \sqrt{\frac{571 \times 18 \pi \times 5.32}{188 \times 345}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$67. \sqrt{\sqrt[3]{\sqrt[3]{0.0000385 \pi}}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$68. \frac{1}{\pi} \times \sqrt{\frac{(0.322)^3}{439}} \times \sqrt[3]{4.25} \text{ equals } \longrightarrow \dots\dots\dots$$

$$69. \frac{\sqrt[3]{8.21} \times \sqrt{\frac{914}{25 \pi}} \times 1.08 \times \frac{94}{17}}{\sqrt{\frac{1/5}{2}}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$70. \frac{8.82 \times \frac{3 \pi}{\sqrt{4.75}} \times \sqrt{0.000317}}{\sqrt{\sqrt[3]{2.22}}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$71. \frac{\frac{\sqrt{4.75}}{\sqrt[3]{\pi}} \times \sqrt{0.000712} \times 8.74}{\sqrt{\sqrt[3]{6.15}}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$72. \sqrt{\frac{1085}{5176}} \times \sqrt[3]{\frac{7060}{184}} \times \left( \frac{125}{\sqrt{342}} \right)^2 \text{ equals } \longrightarrow \dots\dots\dots$$

$$73. \quad \sqrt{\sqrt[3]{\sqrt{91.6}}} \times \sqrt[3]{\sqrt{\sqrt[3]{61.9}}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$74. \quad \sqrt{\left(\frac{156}{248}\right)^3} \times \sqrt[3]{\left(\frac{381}{152}\right)^2} \times \sqrt[3]{\frac{(149)^2 \times \sqrt{171}}{\sqrt{19} \times (104)^2}} \text{ equals } \longrightarrow \dots\dots\dots$$

$$75. \quad \sqrt{\frac{388 \times 883}{(171 \times 243)^3}} \times \frac{\sqrt{0.000316}}{\sqrt[3]{1480}} \text{ equals } \longrightarrow \dots\dots\dots$$

## ANSWER KEY TO DISTRICT SLIDE RULE TEST #107

1. 0.0488 (0.0486 to 0.0490)
2. 466 (464 to 468)
3. 29.0 (28.8 to 29.2)
4. 0.0266 (0.0264 to 0.0268)
5.  $1.45 \times 10^4$  ( $1.43 \times 10^4$  to  $1.47 \times 10^4$ )
6. 965 (963 to 967)
7. 347 (345 to 349)
8. 0.820 (0.818 to 0.822)
9. 2.48 (2.46 to 2.50)
10. 482 (480 to 484)
11.  $1.33 \times 10^4$  ( $1.31 \times 10^4$  to  $1.35 \times 10^4$ )
12. 68.0 (67.8 to 68.2)
13.  $2.25 \times 10^{-4}$  ( $2.23 \times 10^{-4}$  to  $2.27 \times 10^{-4}$ )
14. 0.0397 (0.0395 to 0.0399)
15. 35.7 (35.5 to 35.9)
16. 14.7 (14.5 to 14.9)
17.  $5.52 \times 10^4$  ( $5.50 \times 10^4$  to  $5.54 \times 10^4$ )
18.  $8.68 \times 10^{-4}$  ( $8.66 \times 10^{-4}$  to  $8.70 \times 10^{-4}$ )
19.  $8.93 \times 10^3$  ( $8.91 \times 10^3$  to  $8.95 \times 10^3$ )
20. 69.2 (69.0 to 69.4)
21. 402 (400 to 404)
22.  $5.49 \times 10^4$  ( $5.47 \times 10^4$  to  $5.51 \times 10^4$ )
23. 0.0333 (0.0331 to 0.0335)
24.  $3.85 \times 10^{-7}$  ( $3.83 \times 10^{-7}$  to  $3.87 \times 10^{-7}$ )
25. 0.440 (0.438 to 0.442)
26. 1.45 (1.43 to 1.47)
27. 0.103 (0.101 to 0.105)
28.  $1.47 \times 10^4$  ( $1.45 \times 10^4$  to  $1.49 \times 10^4$ )
29.  $2.71 \times 10^4$  ( $2.69 \times 10^4$  to  $2.73 \times 10^4$ )
30. 42.2 (42.0 to 42.4)
31. 24.9 (24.7 to 25.1)
32. 2.74 (2.72 to 2.76)
33.  $1.86 \times 10^6$  ( $1.84 \times 10^6$  to  $1.88 \times 10^6$ )
34.  $2.04 \times 10^{12}$  ( $1.02 \times 10^{12}$  to  $2.06 \times 10^{12}$ )
35. 58.1 (57.9 to 58.3)
36. 0.573 (0.571 to 0.575)
37. 0.292 (0.290 to 0.294)
38. 0.115 (0.113 to 0.117)
39. 125 (123 to 127)
40.  $1.00 \times 10^{-3}$  ( $0.998 \times 10^{-3}$  to  $1.002 \times 10^{-3}$ )
41. 2.56 (2.54 to 2.58)
42.  $4.90 \times 10^4$  ( $4.88 \times 10^4$  to  $4.92 \times 10^4$ )
43. 74.4 (74.2 to 74.6)
44. 1.69 (1.67 to 1.71)
45. 0.0710 (0.0708 to 0.0712)
46.  $1.65 \times 10^9$  ( $1.63 \times 10^9$  to  $1.67 \times 10^9$ )
47.  $1.94 \times 10^5$  ( $1.92 \times 10^5$  to  $1.96 \times 10^5$ )
48.  $5.06 \times 10^{-13}$  ( $5.04 \times 10^{-13}$  to  $5.08 \times 10^{-13}$ )
49. 36.2 (36.0 to 36.4)
50. 0.0590 (0.0588 to 0.0592)
51. 0.0892 (0.0890 to 0.0894)
52.  $6.87 \times 10^{-3}$  ( $6.85 \times 10^{-3}$  to  $6.89 \times 10^{-3}$ )
53. 0.362 (0.360 to 0.364)
54. 5.17 (5.15 to 5.19)
55. 0.0436 (0.0434 to 0.0438)
56.  $4.69 \times 10^{-8}$  ( $4.67 \times 10^{-8}$  to  $4.71 \times 10^{-8}$ )
57.  $1.41 \times 10^7$  ( $1.39 \times 10^7$  to  $1.43 \times 10^7$ )
58. 3.22 (3.20 to 3.24)
59. 5.08 (5.06 to 5.10)
60. 26.4 (26.2 to 26.6)
61.  $7.56 \times 10^4$  ( $7.54 \times 10^4$  to  $7.58 \times 10^4$ )
62. 1.93 (1.91 to 1.95)
63. 36.1 (35.9 to 36.3)
64. 6.16 (6.14 to 6.18)
65. 0.410 (0.408 to 0.412)
66. 1.63 (1.61 to 1.65)
67. 0.605 (0.603 to 0.607)
68.  $4.50 \times 10^{-3}$  ( $4.48 \times 10^{-3}$  to  $4.52 \times 10^{-3}$ )
69. 125 (123 to 127)
70. 0.595 (0.593 to 0.597)
71. 0.257 (0.255 to 0.259)
72. 70.6 (70.4 to 70.8)
73. 1.83 (1.81 to 1.85)
74. 1.68 (1.66 to 1.70)
75.  $1.08 \times 10^{-7}$  ( $1.06 \times 10^{-7}$  to  $1.10 \times 10^{-7}$ )