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

THE UNIVERSITY INTERSCHOLASTIC LEAGUE

Slide Rule Contest

Number 59

(Special—Not for official contests)

Conference:

Contestant's Serial Number:

Date of Contest:

Location of Contest:

Contestant's Net Score:

1. $41.5 \times 0.228 \times 0.839$ ----- equals _____
2. $0.0444 \times 2.81 \times 793$ ----- equals _____
3. $52.5 \times 0.00363 \times 4.81$ ----- equals _____
4. $0.0996 \times 57,800 \times 0.000663$ ----- equals _____
5. $\frac{4.87}{0.334 \times 0.629}$ ----- equals _____
6. $\frac{83.2 \times 0.154}{0.0527}$ ----- equals _____
7. $\frac{2.88 \times 4.59}{0.217 \times 36.4}$ ----- equals _____
8. $\frac{0.833}{1.86 \times 0.293 \times 44.6}$ ----- equals _____
9. $\frac{0.0379 \times 0.00492}{0.00383 \times 0.516}$ ----- equals _____
10. $\frac{2.79 \times 5.44 \times 3.29 \times 55.5}{0.692 \times 72,100}$ ----- equals _____
11. $\frac{11,200 \times 14,600 \times 0.0000397}{1.36 \times 4.81 \times 6.54 \times 8.98}$ ----- equals _____
12. $\frac{0.0473 \times 0.269 \times 0.00369}{0.00112 \times 0.0376 \times 0.0443}$ ----- equals _____
13. $\frac{586,000 \times 7120 \times 0.396}{283 \times 761 \times 0.105 \times 2.16}$ ----- equals _____
14. $\frac{103 \times 2.68 \times 0.0445 \times 716}{0.0000337 \times 8630 \times 0.0145}$ ----- equals _____

15. $\frac{7.88 \times \sqrt{2.63} \times 5.12}{970 \times 0.667 \times 0.835}$ ----- equals _____
16. $\frac{0.127 \times 0.463 \times \sqrt{2.75}}{\sqrt{0.426} \times 32.7 \times 0.0495}$ ----- equals _____
17. $\frac{(8.33)^2 \times 1.85 \times 0.637}{\sqrt{14.2} \times 54.8 \times 0.973}$ ----- equals _____
18. $0.297 \times \sqrt{0.0000286} \times (57.6)^2 \times 176$ ----- equals _____
19. $\frac{(0.0382)^2 \times 0.593 \times 0.887}{3.62 \times \sqrt{0.000126} \times 0.345}$ ----- equals _____
20. $(76,200)^2 \times 0.000557 \times \sqrt{1.25} \times 0.0116$ ----- equals _____
21. $\frac{8.32 \times \sqrt{6.45} \times 0.00279}{(2.54)^2 \times 0.0372 \times 0.0916}$ ----- equals _____
22. $\frac{15.2 \times (0.000751)^2 \times 286}{0.143 \times \sqrt{1.29} \times 0.0253}$ ----- equals _____
23. $\sqrt{0.000864} \times (28.2)^2 \times 9.38 \times 1.74$ ----- equals _____
24. $\frac{1.66 \times (2.50 \times 3.68)^2 \times 2.87}{9720 \times \sqrt{0.543} \times 0.0869}$ ----- equals _____
25. $\frac{\sqrt{3.66 \times 0.724} \times 0.0000592}{0.175 \times (0.0126)^2 \times 0.553}$ ----- equals _____
26. $\frac{\sqrt[3]{3.72} \times 19.1 \times (0.000482)^2}{0.000229 \times 0.0163 \times 0.0742}$ ----- equals _____
27. $\frac{(1.61 \times 2.82)^3 \times \sqrt{0.336 \times 0.217}}{4.21 \times (3.62 \times 0.117)^2 \times 2.68}$ ----- equals _____

$$28. \frac{(4.88 \times 2.36 \times 1.77)^2 \times 0.114}{0.286 \times (41.7)^3 \times 86,300} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$29. \sqrt{\frac{89.2 \times 4.66}{3.74 \times 66.2}} \times \frac{0.00000332}{(0.00614)^3} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$30. \left[(92.4 \times 0.119)^2 \right]^3 \times \sqrt{0.146 \times 0.00335} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$31. \left[\frac{0.0114 \times 0.392}{1.66 \times 0.00717} \right]^2 \times \sqrt{3.72 \times (0.884)^3} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$32. \sqrt[3]{(14.6 \times 0.0229)^2} \times \left[\sqrt{0.336 \times 1.09} \right]^3 \text{ ----- equals } \underline{\hspace{2cm}}$$

$$33. \frac{0.000362 \times 4.77}{\sqrt{0.0187 \times 0.118}} \times \sqrt[3]{\frac{0.00000367}{0.0000000718}} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$34. \frac{\sqrt{76,300 \times 0.00194} \times 360 \times 0.0798}{0.0491 \times 4100 \times \sqrt[3]{0.279} \times (13.6)^2} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$35. \left[\frac{282 \times 461 \times 374 \times 278}{206 \times 455 \times 270 \times 879} \right]^2 \times \frac{0.876}{0.423} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$36. \frac{\pi \times 0.27 \times \sqrt[3]{0.78}}{2.9 \times 4.66 \times 3.17} \times \sqrt{\frac{97,200}{466,000}} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$37. \frac{(3.62 \times 0.0285)^2 \times \sqrt{1.55 \times 6.41}}{(8.11 \times 0.44)^3 \times 0.022 \times 467} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$38. \left[\frac{0.893 \times \pi^2}{2.91 \times 0.0437} \right]^2 \times \frac{0.144 \times \sqrt[3]{2.05}}{\sqrt{3.69} \times 0.372} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$39. \frac{\sqrt[3]{4.86 \times 0.0921 \times 0.843} \times (0.208)^2}{\sqrt{0.527 \times 0.936} \times 0.415 \times 6.73} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$40. \sqrt{\frac{\sqrt[3]{\pi} \times 0.0271}{\sqrt{0.16 \times 4.22}}} \times \frac{0.000000392}{(0.274 \times 0.032)^2} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$41. \left[\left[(0.00617 \times 0.425)^2 \right]^2 \right]^2 \times \sqrt{(74.6 \times 37)^3} \text{ -- equals } \underline{\hspace{2cm}}$$

$$42. \left[\frac{0.278}{4.62} \right]^2 \times \frac{\sqrt{8630}}{27 \times 446} \times \sqrt[3]{\frac{(3.63)^2}{5.49}} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$43. \frac{\sqrt{\sqrt{0.279 \times 3.46 \times 1.22 \times 0.0469}}}{\pi^3 \times \sqrt{\pi} \times 4.14 \times (0.397 \times 2.66)^2} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$44. \left[\frac{5.28 \times 3.49 \times 0.664}{(3.28 \times 56.7 \times 2.75)^2} \right]^2 \times \sqrt{\frac{0.863}{0.00747}} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$45. \frac{3.06 \times 0.0445}{(0.0001 \times \pi)^2} \times \frac{\sqrt{0.271 \times 4.68}}{(9.83)^3 \times 4.5} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$46. \frac{0.000000339 \times 8.26 \times (47.2)^3}{(0.249 \times 0.0661)^2 \times \pi \times \sqrt{0.0175}} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$47. \left[\frac{0.038 \times 0.478}{0.629 \times 4.79} \right]^3 \times \frac{2.87}{8.64} \times \left[\frac{86.4}{73.5} \right]^2 \text{ ----- equals } \underline{\hspace{2cm}}$$

$$48. \frac{3.27 \times 9.66}{\sqrt{0.414 \times 37.9}} \times \left[\frac{\pi^2 \times 0.973}{2.86 \times 3.55} \right]^2 \text{ ----- equals } \underline{\hspace{2cm}}$$

$$49. \frac{(0.276 \times 3.15)^3 \times 4.86 \times 0.0224}{\sqrt{\pi} \times (19.6 \times 0.456 \times 0.0873)^2} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$50. \left[\frac{0.832}{4.79} \right]^3 \times \sqrt{\frac{0.392}{0.0456}} \times \left[\frac{27 \times 31}{16 \times 54} \right]^2 \text{ ----- equals } \underline{\hspace{2cm}}$$

$$51. \sqrt{\frac{0.0000000328}{0.764 \times 0.0154}} \times \left[\frac{827 \times 861}{142 \times 1.04} \right]^2 \text{ ----- equals } \underline{\hspace{2cm}}$$

$$52. \sqrt[3]{\frac{825 \times 364}{36,400,000}} \times \sqrt{\frac{17,800,000}{8920 \times 468}} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$53. \left[\frac{0.02 \times \pi^3}{0.000792} \right]^2 \times \frac{\sqrt{14.6 \times 0.0379}}{72,600 \times 8.31} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$54. \sqrt{\sqrt{(0.827 \times 4.66)^3}} \times \frac{\sqrt[3]{0.261 \times 33.4}}{(4.96 \times 3.77)^2} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$55. \frac{(14.7 \times 6.92)^2 \times 3.44 \times \sqrt{5.27}}{0.863 \times 67.3 \times (0.012 \times 736)^3} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$56. \frac{\sqrt{5.27} \times 0.000416 \times \pi}{3.22 \times (0.617 \times 0.125)^2} \times \left[\frac{76.2}{0.114} \right]^3 \text{ ----- equals } \underline{\hspace{2cm}}$$

$$57. \frac{0.772 \times 76,300}{\sqrt{\frac{\sqrt{4.62 \times 4.88}}{6.54 \times 2.81}}} \times \frac{(0.049 \times 3.61)^2}{\pi^3 \times 0.0392} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$58. \frac{\sqrt{8.92 \times (4.36)^3}}{0.424 \times 0.0276} \times \frac{\left[\frac{0.121 \times 1.64}{14.7 \times 81.6} \right]^2}{4.93 \times 2.69} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$59. \frac{\sqrt{\sqrt{\pi} \times 0.227 \times (0.00049 \times 0.221)^2}}{(0.00827 \times 0.0477)^3 \times 72.6 \times 3.49} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$60. \frac{\sqrt{\frac{1.85}{0.763}}}{\sqrt[3]{\pi}} \times \left[\frac{4.79}{0.996} \right]^2 \times \frac{0.0000494}{2.73 \times 1.72} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$61. \sqrt{\frac{0.346 \times 72,400,000}{9.26 \times 1.34 \times \sqrt{2.02}}} \times \frac{0.0397}{\left[\frac{(12 \times \pi)^2}{0.777} \right]^2} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$62. \frac{0.0272 \times 1.05}{\sqrt{\frac{0.0000000391}{0.446 \times \sqrt{0.392}}}} \times \frac{0.0643 \times 0.00129}{\left[\frac{2.76}{3.94} \right]^2 \times 0.775} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$63. \frac{\sqrt{0.398 \times \sqrt{0.114 \times 0.683 \times 0.727}}}{(0.00296)^3 \times 43 \times 72 \times 96 \times 83} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$64. \frac{\sqrt{\pi^3} \times \frac{0.0497}{0.882}}{(0.142 \times 0.806)^2} \times \frac{\frac{27}{62} \times 897 \times \frac{1}{3}}{(0.224 \times 973)^3} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$65. \frac{0.278 \times (3.48 \times 2.16)^2}{\sqrt{\frac{4.72 \times 0.192}{2.78 \times 3.46}} \times 3.68} \times \frac{\sqrt[3]{863}}{\frac{792}{441}} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$66. \left[\frac{\frac{4.82 \times 9.61}{0.882 \times 3.71}}{\frac{3.32 \times 5.04}{9.76 \times 1.38}} \right]^2 \times \sqrt{\frac{0.827}{\sqrt{\frac{0.0526}{0.00792}}}} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$67. \left[\sqrt[3]{\frac{0.000326}{98.2 \times 3.61}} \right]^2 \times \pi^3 \times \sqrt{\frac{3.96}{8.72}} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$68. \frac{[1.66 \times (13.7 \times 0.041)^2 \times (0.492 \times 3.16)^3]^2}{\sqrt{0.145} \times \sqrt{27.6 \times 19.2} \times 1.46 \times \sqrt[3]{\pi \times 12}} - \text{equals } \underline{\hspace{2cm}}$$

$$69. \frac{\sqrt{\frac{2600 \times 0.14 \times 0.075}{0.217 \times 4.66 \times 3.81}} \times \sqrt[3]{\frac{3.65}{41.7}}}{\frac{2.85}{14.7} \times \left[\frac{0.0484 \times 1.61 \times 17}{\pi \times 0.0491 \times 0.00637} \right]^2} \text{----- equals } \underline{\hspace{2cm}}$$

$$70. \sqrt{\sqrt{\frac{0.876}{[\sqrt{3.91}]^3}} \times \left[\frac{(3.52)^2}{(0.774)^3} \right]^3 \times \left[\frac{28 \times 16 \times 74}{(35 \times 22 \times 45)^2} \right]^2} = \underline{\hspace{2cm}}$$

$$71. \sqrt{\frac{\sqrt{\frac{12 \times \pi \times 3.5}{0.227 \times 0.0495}}}{\sqrt[3]{12,400 \times 0.862}} \times \frac{\sqrt[3]{\pi}}{36} \times \frac{12 \times 1.5}{0.0000662}}{(0.27 \times 11,300)^2} \text{----- equals } \underline{\hspace{2cm}}$$

$$72. \frac{\sqrt{\frac{3.66 \times 0.145}{0.822 \times 0.0661}} \times \frac{37.2}{8.64} \times \left[\frac{46}{39} \right]^3}{[(7.36 \times 0.0812)^2 \times 382 \times 0.000426]^2} \text{----- equals } \underline{\hspace{2cm}}$$

$$73. \frac{\sqrt{(2.91 \times 0.0476)^3 \times 31.7 \times (0.0825)^3}}{\frac{28 \times 64}{31 \times 52} \times \left[\frac{0.00452 \times 16.2 \times 8.43}{\sqrt[3]{\pi} \times 0.449 \times 0.0637} \right]^2} \text{----- equals } \underline{\hspace{2cm}}$$

$$74. \sqrt{\frac{\sqrt{0.227 \times \sqrt{1.43}}}{\left[\frac{31.7 \times 0.0816}{0.439 \times 0.285} \right]^3} \times \frac{2,800,000 \times 0.379}{\left[(4.63)^2 \times \frac{32 \times 65}{0.00284} \right]^2}} - \text{equals } \underline{\hspace{2cm}}$$

$$75. \frac{(94 \times 66 \times 82)^3}{\left[\frac{2,460,000,000}{(88)^2 \times 0.939} \right]^2} \times \frac{0.946 \times 78.5}{\sqrt{\sqrt{\sqrt{3.27} \times 2.88}}} \text{----- equals } \underline{\hspace{2cm}}$$

1.	7.94	(7.92	to	7.96)
2.	9.39×10^1	$(9.87 \times 10^1$	to	$9.91 \times 10^1)$
3.	9.17×10^{-1}	$(9.15 \times 10^{-1}$	to	$9.19 \times 10^{-1})$
4.	3.82	(3.80	to	3.84)
5.	2.32×10^1	$(2.30 \times 10^1$	to	$2.34 \times 10^1)$
6.	2.43×10^2	$(2.41 \times 10^2$	to	$2.45 \times 10^2)$
7.	1.67	(1.65	to	1.69)
8.	3.43×10^{-2}	$(3.41 \times 10^{-2}$	to	$3.45 \times 10^{-2})$
9.	9.44×10^{-2}	$(9.42 \times 10^{-2}$	to	$9.46 \times 10^{-2})$
10.	5.55×10^{-2}	$(5.53 \times 10^{-2}$	to	$5.57 \times 10^{-2})$
11.	1.69×10^1	$(1.67 \times 10^1$	to	$1.71 \times 10^1)$
12.	2.52×10^1	$(2.50 \times 10^1$	to	$2.54 \times 10^1)$
13.	3.30×10^4	$(3.36 \times 10^4$	to	$3.40 \times 10^4)$
14.	2.09×10^6	$(2.07 \times 10^6$	to	$2.11 \times 10^6)$
15.	1.21×10^{-1}	$(1.19 \times 10^{-1}$	to	$1.23 \times 10^{-1})$
16.	9.23×10^{-2}	$(9.21 \times 10^{-2}$	to	$9.25 \times 10^{-2})$
17.	4.07×10^{-1}	$(4.05 \times 10^{-1}$	to	$4.09 \times 10^{-1})$
18.	9.27×10^2	$(9.25 \times 10^2$	to	$9.29 \times 10^2)$
19.	5.48×10^{-2}	$(5.46 \times 10^{-2}$	to	$5.50 \times 10^{-2})$
20.	4.19×10^4	$(4.17 \times 10^4$	to	$4.21 \times 10^4)$
21.	2.68	(2.66	to	2.70)
22.	5.97×10^{-1}	$(5.95 \times 10^{-1}$	to	$5.99 \times 10^{-1})$
23.	3.82×10^2	$(3.80 \times 10^2$	to	$3.84 \times 10^2)$
24.	6.48×10^{-1}	$(6.46 \times 10^{-1}$	to	$6.50 \times 10^{-1})$
25.	6.27	(6.25	to	6.29)
26.	2.48×10^1	$(2.46 \times 10^1$	to	$2.50 \times 10^1)$
27.	1.25×10^1	$(1.23 \times 10^1$	to	$1.27 \times 10^1)$
28.	2.65×10^{-8}	$(2.63 \times 10^{-8}$	to	$2.67 \times 10^{-8})$
29.	1.86×10^1	$(1.84 \times 10^1$	to	$1.88 \times 10^1)$
30.	3.91×10^4	$(3.89 \times 10^4$	to	$3.93 \times 10^4)$
31.	2.26×10^{-1}	$(2.24 \times 10^{-1}$	to	$2.28 \times 10^{-1})$
32.	1.22×10^{-1}	$(1.20 \times 10^{-1}$	to	$1.24 \times 10^{-1})$
33.	1.36×10^{-1}	$(1.34 \times 10^{-1}$	to	$1.38 \times 10^{-1})$
34.	1.44×10^{-2}	$(1.42 \times 10^{-2}$	to	$1.46 \times 10^{-2})$
35.	7.65×10^{-1}	$(7.63 \times 10^{-1}$	to	$7.67 \times 10^{-1})$
36.	8.32×10^{-3}	$(8.30 \times 10^{-3}$	to	$8.34 \times 10^{-3})$
37.	7.19×10^{-5}	$(7.17 \times 10^{-5}$	to	$7.21 \times 10^{-5})$
38.	1.23×10^3	$(1.21 \times 10^3$	to	$1.25 \times 10^3)$
39.	1.59×10^{-2}	$(1.57 \times 10^{-2}$	to	$1.61 \times 10^{-2})$
40.	1.12×10^{-3}	$(1.10 \times 10^{-3}$	to	$1.14 \times 10^{-3})$
41.	3.24×10^{-16}	$(3.22 \times 10^{-16}$	to	$3.26 \times 10^{-16})$
42.	3.74×10^{-5}	$(3.72 \times 10^{-5}$	to	$3.76 \times 10^{-5})$
43.	2.02×10^{-4}	$(2.00 \times 10^{-4}$	to	$2.04 \times 10^{-4})$
44.	2.35×10^{-8}	$(2.33 \times 10^{-8}$	to	$2.37 \times 10^{-8})$
45.	3.64×10^2	$(3.62 \times 10^2$	to	$3.66 \times 10^2)$
46.	2.62×10^2	$(2.60 \times 10^2$	to	$2.64 \times 10^2)$
47.	1.01×10^{-7}	$(9.90 \times 10^{-7}$	to	$1.03 \times 10^{-7})$
48.	7.13	(7.11	to	7.15)
49.	6.63×10^{-2}	$(6.61 \times 10^{-2}$	to	$6.65 \times 10^{-2})$
50.	1.44×10^2	$(1.42 \times 10^2$	to	$1.46 \times 10^2)$
51.	3.88×10^4	$(3.86 \times 10^4$	to	$3.90 \times 10^4)$
52.	4.17×10^{-1}	$(4.15 \times 10^{-1}$	to	$4.19 \times 10^{-1})$
53.	7.56×10^{-1}	$(7.54 \times 10^{-1}$	to	$7.58 \times 10^{-1})$
54.	1.68×10^{-1}	$(1.66 \times 10^{-1}$	to	$1.70 \times 10^{-1})$
55.	2.04	(2.02	to	2.06)
56.	4.60×10^7	$(4.66 \times 10^7$	to	$4.70 \times 10^7)$
57.	2.98×10^3	$(2.96 \times 10^3$	to	$3.00 \times 10^3)$
58.	4.79×10^{-6}	$(4.77 \times 10^{-6}$	to	$4.81 \times 10^{-6})$
59.	4.73×10^{-1}	$(4.76 \times 10^{-1}$	to	$4.80 \times 10^{-1})$
60.	2.59×10^{-4}	$(2.57 \times 10^{-4}$	to	$2.61 \times 10^{-4})$
61.	1.41×10^{-5}	$(1.39 \times 10^{-5}$	to	$1.43 \times 10^{-5})$
62.	1.66×10^{-2}	$(1.64 \times 10^{-2}$	to	$1.68 \times 10^{-2})$
63.	4.44×10^{-1}	$(4.42 \times 10^{-1}$	to	$4.46 \times 10^{-1})$
64.	3.01×10^{-4}	$(2.99 \times 10^{-4}$	to	$3.03 \times 10^{-4})$
65.	7.37×10^1	$(7.35 \times 10^1$	to	$7.39 \times 10^1)$
66.	7.35×10^1	$(7.33 \times 10^1$	to	$7.37 \times 10^1)$
67.	1.98×10^{-3}	$(1.96 \times 10^{-3}$	to	$2.00 \times 10^{-3})$
68.	4.25×10^{-5}	$(4.23 \times 10^{-5}$	to	$4.27 \times 10^{-5})$
69.	9.70×10^{-5}	$(9.68 \times 10^{-5}$	to	$9.72 \times 10^{-5})$
70.	1.59×10^6	$(1.57 \times 10^6$	to	$1.61 \times 10^6)$
71.	2.36×10^3	$(2.34 \times 10^3$	to	$2.38 \times 10^3)$
72.	5.33	(5.31	to	5.35)
73.	5.14×10^{-3}	$(5.12 \times 10^{-3}$	to	$5.16 \times 10^{-3})$
74.	5.82×10^{-1}	$(5.80 \times 10^{-1}$	to	$5.84 \times 10^{-1})$
75.	1.13	(1.11	to	1.15)

Note: If error is found in this key, grade by correct answer. The State Office will appreciate a report of any error found.