

THE UNIVERSITY INTERSCHOLASTIC LEAGUE

TIE BREAKER

(173)

Number 173

1. $\frac{4.66 \times 3.92 \times 7.84}{\sqrt{2.91 \times 46.7 \times 5.08}}$ ----- equals _____

2. $\frac{\sqrt{0.0165} \times 626}{0.34 \times (64,800)^2} \times \sqrt{\frac{8320}{0.000003}}$ ----- equals _____

3. $\sqrt{\frac{\pi^3 \times 36.1 \times 0.07 \times 124}{0.025 \times 14,300 \times \sqrt{\pi}}}$ ----- equals _____

4. $\sqrt{\frac{\frac{2.76}{0.149}}{\frac{0.00382}{0.000445}}} \times \frac{[(6.17)^2 \times 1.92]^2}{\sqrt{\pi} \times 374,000}$ ----- equals _____

5. $\sqrt{\sqrt{\frac{9.16}{0.827}}} \times \frac{\sqrt[3]{\frac{3.78}{2.16} \times 0.192}}{0.227 \times 46.3}$ ----- equals _____

6. $\frac{\sqrt[3]{(0.372 \times 4.66)^2 \times 0.00228}}{1.66 \times 3.92 \times 0.472 \times 8.81}$ ----- equals _____

7. $\left[\frac{0.396}{2.17} \right]^2 \times \frac{\pi^2}{8} \times \left[\frac{2.79}{0.194} \right]^3$ ----- equals _____

8. $\sqrt{\frac{4.62 \times 0.929}{\sqrt{0.00000000227}}} \times \frac{(\pi^2 \times 0.0176)^2}{3.97 \times 9.89}$ ----- equals _____

9. $\frac{\sqrt{\sqrt{\sqrt{1.62 \times 3.48 \times 7.82 \times 0.0279}}}}{\left[\frac{0.262 \times 5.41}{3.78 \times 0.555} \right]^2} \times \frac{1.25 \times 3.6}{14.7 \times 2.88}$ ----- equals _____

$$10. \frac{\left[\frac{2.78 \times 16.1}{4.01 \times 2.73} \times (1.73)^2 \right]^2}{\sqrt[3]{\pi^2 \times 16.1 \times 0.00229}} \times (1.46)^3 \text{ ----- equals } \underline{\hspace{2cm}}$$

$$11. \frac{\left[\frac{2.83}{4.69} \right]^3}{\left[\frac{7.19}{4.08} \right]^2} \times \sqrt{\frac{\sqrt{7,620,000}}{987 \times 633}} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$12. \frac{\left[3.27 \times \left[0.0119 \times 4.62 \times (5.09)^2 \right]^2 \right]^2}{\sqrt{796} \times 141 \times 527 \times 403 \times 888} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$13. \frac{\sqrt{157 \times 0.0193}}{\frac{27 \times 46 \times 39}{82 \times 51 \times 77}} \times \left[\frac{2.63 \times 1.48}{3.42 \times 1.05} \right]^3 \text{ ----- equals } \underline{\hspace{2cm}}$$

$$14. \sqrt{\frac{\sqrt{5.28 \times 0.00000226}}{\sqrt{12.6 \times 8 \times 3.24}}} \times \left[\frac{0.01 \times \pi}{(0.0396)^2} \right]^2 \text{ ----- equals } \underline{\hspace{2cm}}$$

$$15. \frac{\frac{3.22 \times 1.49}{0.279 \times 4.68}}{\sqrt{\frac{5.26 \times 1.78}{2.37 \times 8.08}}} \times \frac{\sqrt[3]{0.00000228}}{\left[\frac{0.62 \times 7.1}{4.3 \times 0.89} \right]^3} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$16. \frac{\frac{0.827}{3.61}}{\frac{5.49}{6.77}} \times \frac{\sqrt{1.22 \times 0.00492}}{\left[\pi^2 \times \frac{26 \times 42}{37 \times 15} \right]^2} \text{ ----- equals } \underline{\hspace{2cm}}$$

$$17. \frac{\left[\frac{0.0796}{25 \times 55} \right]^3 \times \sqrt[3]{\pi} \times 39,700}{\sqrt{2.73 \times \sqrt{4.97 \times \sqrt{8.61 \times 7.33}}}} \text{ ----- equals } \underline{\hspace{2cm}}$$

THE UNIVERSITY INTERSCHOLASTIC LEAGUE SLIDE RULE ANSWER KEY (TIEBREAKER) #173

1.	5.45	(5.43	to	5.47)
2.	2.97×10^{-3}	$(2.95 \times 10^{-3}$	to	$2.99 \times 10^{-3})$
3.	3.92	(3.90	to	3.94)
4.	1.18×10^{-2}	$(1.16 \times 10^{-2}$	to	$1.20 \times 10^{-2})$
5.	1.21×10^{-1}	$(1.19 \times 10^{-1}$	to	$1.23 \times 10^{-1})$
6.	7.02×10^{-3}	$(7.00 \times 10^{-3}$	to	$7.04 \times 10^{-3})$
7.	2.46×10^1	$(2.44 \times 10^1$	to	$2.48 \times 10^1)$
8.	2.31×10^{-1}	$(2.29 \times 10^{-1}$	to	$2.33 \times 10^{-1})$
9.	7.15	(7.13	to	7.17)
10.	3.76×10^4	$(3.74 \times 10^4$	to	$3.78 \times 10^4)$
11.	2.35×10^{-5}	$(2.33 \times 10^{-5}$	to	$2.37 \times 10^{-5})$
12.	5.87×10^{-11}	$(5.85 \times 10^{-11}$	to	$5.89 \times 10^{-11})$
13.	1.88×10^1	$(1.86 \times 10^1$	to	$1.90 \times 10^1)$
14.	2.46	(2.44	to	2.48)
15.	4.54×10^{-2}	$(4.52 \times 10^{-2}$	to	$4.56 \times 10^{-2})$
16.	5.80×10^{-5}	$(5.78 \times 10^{-5}$	to	$5.82 \times 10^{-5})$
17.	2.72×10^{-9}	$(2.70 \times 10^{-9}$	to	$2.74 \times 10^{-9})$

Note: If error is found in this key, grade by Correct answer.

The State Office will appreciate a report of any error found.