

Name: _____

Block: _____

Chemistry 11

Significant Figures in Calculations - Multiply / Divide

Directions: Multiply/divide 2-40 (evens only) in the normal fashion rounding off to the least # of

RULES:

When multiplying or dividing numbers with different number of significant figures, multiply or divide in the normal fashion, then round the answer to the LEAST number of significant figures of any number in the problem.

When multiplying numbers in scientific notation, you add exponents; when dividing numbers in scientific notation, you subtract exponents.

- | | | | |
|---|-----------------------------------|--|------------------------|
| 1. 1.2359×6598.32 | | 21. $325.23 / 2569.32$ | |
| 2. 258.658×0.02569 | 6.645 | 22. $124.23 / 568$ | 2.19×10^{-1} |
| 3. 124.356×1000.3 | | 23. $0.01256 / 0.00001256$ | |
| 4. 1245.6×654 | 8.15×10^5 | 24. $9587.32 / 4569$ | 2.098 |
| 5. 12478×0.00057 | | 25. $(9.356 \times 3.325) / 21.300$ | |
| 6. 98756×12569 | 1.2413×10^9 | 26. $(10.235 \times 3.25) / 0.0023658$ | 1.41×10^4 |
| 7. $0.00256 \times 0.002536036$ | | 27. $(12.356 \times 0.9987) / 2.356$ | |
| 8. 10000×230000 | 2×10^9 | 28. $(6.458 \times 1.2350) / 4.569$ | 1.746 |
| 9. $1.0000 \times 10^5 \cdot 2.3569 \times 10^7$ | | 29. $(125.236 \times 12.30) / 526.987$ | |
| 10. 12569.32569×1235 | 1.552×10^7 | 30. $(2.356 \times 0.01256) / 124$ | 2.39×10^{-4} |
| 11. $45698.35856 \times 12.2456$ | | 31. $(1.235 \times 0.0231) / 23$ | |
| 12. $123669589 \times 12563659$ | 1.5537425×10^{15} | 32. $(4.2545 \times 0.0003200) / 456.39$ | 2.983×10^{-6} |
| 13. 0.003256×125 | | 33. $(45.2 \times 6.235) / 0.023560$ | |
| 14. $8695.23 \times 0.000120300$ | 1.04604 | 34. $(1.235 \times 6.523) / 8.00$ | 1.01 |
| 15. 85475×45632 | | 35. $(1.01020 \times 23.2156) / 1000.0$ | |
| 16. 987.1236×459 | 4.53×10^5 | 36. $(45.236 / 9.563) \times 2.325$ | 11.00 |
| 17. $1.000098 \times 10^2 \cdot 965.2356 \times 10^4$ | | 37. $(789.652 / 165.3) \times 4.00 \cdot 10^1$ | |
| 18. 9.6383×0.002356 | 0.02271 or 2.271×10^{-2} | 38. $(356.245 / 98.5) \times 1.02$ | 3.69 |
| 19. 2158.695×1456 | | 39. $(85.36 / 9.0) \times 0.00356$ | |
| 20. 0.2365×9.65874 | 2.284 | 40. $(45.369 \times 2.001) / 4.9$ | 19 |