Exponent Worksheets

Directions: Simplify each expression using the laws of exponents. Use the least number of bases possible and only positive exponents. All letters denote numbers.

| 1. | $2^2 \cdot 2^3 =$ | |
|-----|-----------------------------------|--|
| 2. | $2^2 \cdot 2^4 =$ | |
| 3. | $2^2 \cdot 2^5 =$ | |
| 4. | $3^7 \cdot 3^1 =$ | |
| 5. | 38 · 31 = | |
| 6. | $3^9 \cdot 3^1 =$ | |
| 7. | 7 ⁶ · 7 ² = | |
| 8. | $7^6 \cdot 7^3 =$ | |
| 9. | $7^6 \cdot 7^4 =$ | |
| 10. | 1115 · 11 = | |
| 11. | 1116 · 11 = | |
| 12. | 212 · 22 = | |
| 13. | $2^{12} \cdot 2^4 =$ | |
| 14. | 212 · 26 = | |
| 15. | $99^5 \cdot 99^2 =$ | |
| 16. | 996 · 993 = | |
| 17. | $99^7 \cdot 99^4 =$ | |
| 18. | $5^8 \cdot 5^2 =$ | |
| 19. | $6^8 \cdot 6^2 =$ | |
| 20. | $7^8 \cdot 7^2 =$ | |
| 21. | $r^8 \cdot r^2 =$ | |
| 22. | $s^8 \cdot s^2 =$ | |

| 23. | $6^3 \cdot 6^2 =$ | |
|-----|--------------------------------|--|
| | | |
| 24. | $6^2 \cdot 6^3 =$ | |
| 25. | $(-8)^3 \cdot (-8)^7 =$ | |
| 26. | $(-8)^7 \cdot (-8)^3 =$ | |
| 27. | $(0.2)^3 \cdot (0.2)^7 =$ | |
| 28. | $(0.2)^7 \cdot (0.2)^3 =$ | |
| 29. | $(-2)^{12} \cdot (-2)^1 =$ | |
| 30. | $(-2.7)^{12} \cdot (-2.7)^1 =$ | |
| 31. | $1.1^6 \cdot 1.1^9 =$ | |
| 32. | $57^6 \cdot 57^9 =$ | |
| 33. | $x^6 \cdot x^9 =$ | |
| 34. | $2^7 \cdot 4 =$ | |
| 35. | $2^7 \cdot 4^2 =$ | |
| 36. | 2 ⁷ · 16 = | |
| 37. | $16 \cdot 4^3 =$ | |
| 38. | $3^2 \cdot 9 =$ | |
| 39. | $3^2 \cdot 27 =$ | |
| 40. | 3 ² · 81 = | |
| 41. | 5 ⁴ · 25 = | |
| 42. | 5 ⁴ · 125 = | |
| 43. | 8 · 2 ⁹ = | |
| 44. | 16 · 29 = | |
| | | |

Exponent Worksheets

Directions: Simplify each expression using the laws of exponents. Use the least number of bases possible and only positive exponents. All letters denote numbers.

| 1. | $2^2 \cdot 2^3 =$ | 25 |
|-----|-------------------------|-----------------|
| 2. | $2^2 \cdot 2^4 =$ | 26 |
| 3. | $2^2 \cdot 2^5 =$ | 27 |
| 4. | $3^7 \cdot 3^1 =$ | 311 |
| 5. | 38 · 31 = | 39 |
| 6. | $3^9 \cdot 3^1 =$ | 310 |
| 7. | $7^6 \cdot 7^2 =$ | 7 ⁸ |
| 8. | $7^6 \cdot 7^3 =$ | 79 |
| 9. | $7^6 \cdot 7^4 =$ | 710 |
| 10. | 11 ¹⁵ · 11 = | 1116 |
| 11. | 11 ¹⁶ · 11 = | 1117 |
| 12. | $2^{12} \cdot 2^2 =$ | 214 |
| 13. | $2^{12} \cdot 2^4 =$ | 216 |
| 14. | $2^{12} \cdot 2^6 =$ | 218 |
| 15. | $99^5 \cdot 99^2 =$ | 997 |
| 16. | 996 · 993 = | 99* |
| 17. | $99^7 \cdot 99^4 =$ | 9911 |
| 18. | $5^8 \cdot 5^2 =$ | 510 |
| 19. | $6^8 \cdot 6^2 =$ | 610 |
| 20. | $7^8 \cdot 7^2 =$ | 710 |
| 21. | $r^8 \cdot r^2 =$ | r ¹⁰ |
| 22. | $s^8 \cdot s^2 =$ | s ¹⁰ |

| 23. | $6^3 \cdot 6^2 =$ | 6 ⁵ |
|-----|--------------------------------|------------------|
| 24. | $6^2 \cdot 6^3 =$ | 6 ⁵ |
| 25. | $(-8)^3 \cdot (-8)^7 =$ | $(-8)^{10}$ |
| 26. | $(-8)^7 \cdot (-8)^3 =$ | $(-8)^{10}$ |
| 27. | $(0.2)^3 \cdot (0.2)^7 =$ | $(0.2)^{10}$ |
| 28. | $(0.2)^7 \cdot (0.2)^3 =$ | $(0.2)^{10}$ |
| 29. | $(-2)^{12} \cdot (-2)^1 =$ | $(-2)^{13}$ |
| 30. | $(-2.7)^{12} \cdot (-2.7)^1 =$ | $(-2.7)^{13}$ |
| 31. | $1.1^6 \cdot 1.1^9 =$ | 1.115 |
| 32. | $57^6 \cdot 57^9 =$ | 57 ¹⁵ |
| 33. | $x^6 \cdot x^9 =$ | x15 |
| 34. | 27 · 4 = | 29 |
| 35. | $2^7 \cdot 4^2 =$ | 211 |
| 36. | 27 · 16 = | 211 |
| 37. | $16 \cdot 4^3 =$ | 45 |
| 38. | $3^2 \cdot 9 =$ | 34 |
| 39. | $3^2 \cdot 27 =$ | 35 |
| 40. | $3^2 \cdot 81 =$ | 36 |
| 41. | $5^4 \cdot 25 =$ | 56 |
| 42. | 5 ⁴ · 125 = | 57 |
| 43. | $8 \cdot 2^9 =$ | 212 |
| 44. | 16 · 29 = | 213 |