
Worksheet 11-2
Multiplying Variables with Exponents

Unit 11

Fill in the following for the problems.

1. $10^2 \cdot 10^5 =$ _____ (expanded form)
= _____ (written with an exponent)
= _____ (actual value)

2. $5^2 \cdot 5^3 =$ _____ (expanded form)
= _____ (written with an exponent)
= _____ (actual value)

3. Rule: _____

Simplify.

4. g squared

8. $m^{18} \cdot m^2$

5. d cubed

9. $x^4 \cdot y \cdot x^5 \cdot y$

6. $a^9 \cdot a \cdot a^3$

10. $5 \cdot b^3 \cdot 2 \cdot b^6$

7. $(x^2)(y^5)(x)$

11. $4 \cdot z^5 \cdot 6 \cdot z^4$

Fill in the following for the problems.

12. $(3^3)^2 =$ _____ (expanded form)
= _____ (written with an exponent)
= _____ (actual value)

13. $(5^2)^3 =$ _____ (expanded form)
= _____ (written with an exponent)
= _____ (actual value)

14. Rule: _____

Simplify.

15. $(x^3)^4$

16. $(c^3)^2$

17. $(m^5)^5$

Simplify.

18. $(-2a^3)(-2a^3)$

23. $(3x^2)^3$

19. $(xy)^2$

24. $-7x^6 \cdot -5x^8$

20. $(9b^2)(-4b^3)$

25. $(-5b^2)^0$

21. $(a^2b^4)^3$

26. $3t^2 \cdot 2t^3$

22. $8a^9 \cdot 8a^3$

27. $(2ab^3)^2$