

Unit 8 Objective 3 Remediation

Power of a Product Property

$$(ab)^m = a^m b^m$$

When taking a product to a power, each factor gets raised to the power. If there is a coefficient, don't forget to take that to the power.

Examples

1. $(xy)^3 = x^3 y^3$
2. $(2w)^4 = 2^4 w^4 = 16w^4$
3. $(-3ab)^2 = (-3)^2 a^2 b^2 = 9a^2 b^2$

Try These

- | | |
|---------------|-----------|
| 1. $(ab)^5$ | 1. _____ |
| 2. $(xy)^8$ | 2. _____ |
| 3. $(-2g)^3$ | 3. _____ |
| 4. $(5xy)^2$ | 4. _____ |
| 5. $(-3b)^4$ | 5. _____ |
| 6. $(-mnp)^2$ | 6. _____ |
| 7. $(6bc)^2$ | 7. _____ |
| 8. $(-3k)^3$ | 8. _____ |
| 9. $(9abc)^2$ | 9. _____ |
| 10. $(-2h)^5$ | 10. _____ |