

8-1 Multiplying Monomials - ANSWERS

Front: **Simplify.**

1. $y(y^5)$
 y^6

2. $n^2 \cdot n^7$
 n^9

3. $(-7x^2)(x^4)$
 $-7x^6$

4. $x(x^2)(x^4)$
 x^7

5. $m \cdot m^5$
 m^6

6. $(-x^3)(-x^4)$
 x^7

7. $(2a^2)(8a)$
 $16a^3$

8. $(rs)(rs^3)(s^2)$
 r^2s^6

9. $(x^2y)(4xy^3)$
 $4x^3y^4$

10. $\frac{1}{3}(2a^3b)(6b^3)$
 $4a^3b^4$

11. $(-4x^3)(-5x^7)$
 $20x^{10}$

12. $(-3j^2k^4)(2jk^6)$
 $-6j^3k^{10}$

13. $(5a^2bc^3)\left(\frac{1}{5}abc^4\right)$
 $a^3b^2c^7$

14. $(-5xy)(4x^2)(y^4)$
 $-20x^3y^5$

15. $(10x^3yz^2)(-2xy^5z)$
 $-20x^4y^6z^3$

Back: **Simplify.**

1. $(y^5)^2$
 y^{10}

2. $(n^7)^4$
 n^{28}

3. $(x^2)^5(x^3)$
 x^{13}

4. $-3(ab^4)^3$
 $-3a^3b^{12}$

5. $(-3ab^4)^3$
 $-27a^3b^{12}$

6. $(4x^2b)^3$
 $64x^6b^3$

7. $(4a^2)^2(b^3)$
 $16a^4b^3$

8. $(4x)^2(b^3)$
 $16x^2b^3$

9. $(x^2y^4)^5$
 $x^{10}y^{20}$

10. $(2a^3b^2)(b^3)^2$
 $2a^3b^8$

11. $(-4xy)^3(-2x^2)^3$
 $512x^9y^3$

12. $(-3j^2k^3)^2(2j^2k)^3$
 $72j^{10}k^9$

13. $(25a^2b)^3\left(\frac{1}{5}abc\right)^2$
 $625a^8b^5c^2$

14. $(2xy)^2(-3x^2)(4y^4)$
 $-48x^4y^6$

15. $(2x^3y^2z^2)^3(x^2z)^4$
 $8x^{17}y^6z^{10}$

16. $(-2n^6y^5)(-6n^3y^2)(ny)^3$
 $12n^{12}y^{10}$

17. $(-3a^3n^4)(-3a^3n)^4$
 $-243a^{15}n^8$

18. $-3(2x)^4(4x^5y)^2$
 $-768x^{14}y^2$