

Unit 6 Day 1  
PROPERTIES OF EXPONENTS HOMEWORK

**Directions:** Simplify the expression. Write your answer using exponents.

1.  $7^3 \cdot 7^5 = 7^8$

2.  $(x^2)(x^8)(x^5) = x^{15}$

3.  $(m^3)^6 = m^{18}$

4.  $r^4s^3 \cdot r^5s^3 = r^9s^6$

5.  $(7^2)^8 = 7^{16}$

6.  $(3y^4)^3 = 3^3y^{12}$  or  $27y^{12}$

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2.  $(x^2)(x^8)(x^5)$

3.  $(m^3)^6$

4.  $r^4s^3 \cdot r^5s^3$

5.  $(7^2)^8$

6.  $(3y^4)^3$

$$7. (-4r^2)^2 = 16r^4$$

$$8. (m^2n)^4 = m^8n^4$$

$$9. (5x^5)(3x^2y^5) = 15x^7y^5$$

$$10. (3x^3)^2(x^4y^2)^2 = 9x^{14}y^4$$

$$7. (-4r^2)^2$$

$$8. (m^2n)^4$$

$$9. (5x^5)(3x^2y^5)$$

$$10. (3x^3)^2(x^4y^2)^2$$