

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Powers of Products

Simplify the exponents.

1)  $(2r^2 \cdot 3r^3)^3$

8)  $(3y^2 \cdot y)^3$

2)  $(4d^4 r^3)^3$

9)  $(k \cdot 4k^3 \cdot k^2)^3$

3)  $(3nc^6)^2$

10)  $(4r^4 w)^4$

4)  $(3z^3 \cdot z^3)^2$

11)  $(2h^2 \cdot h \cdot 3)^3$

5)  $(2k^2 \cdot 3k^3 \cdot k)^2$

12)  $(3s^3)^2$

6)  $(4c^2 \cdot 2c \cdot c^3)^2$

13)  $(3b^2 \cdot 4b)^2$

7)  $(r \cdot 4r^3)^2$

14)  $(2r^2 \cdot r^2 \cdot 3r)^3$



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## Powers of Products

Simplify the exponents.

1)  $(2r^2 \cdot 3r^3)^3$   
 $216r^{15}$

2)  $(4d^4 r^3)^3$   
 $64d^{12} r^9$

3)  $(3nc^6)^2$   
 $9n^2 c^{12}$

4)  $(3z^3 \cdot z^3)^2$   
 $9z^{12}$

5)  $(2k^2 \cdot 3k^3 \cdot k)^2$   
 $36k^{12}$

6)  $(4c^2 \cdot 2c \cdot c^3)^2$   
 $64c^{12}$

7)  $(r \cdot 4r^3)^2$   
 $16r^8$

8)  $(3y^2 \cdot y)^3$   
 $27y^9$

9)  $(k \cdot 4k^3 \cdot k^2)^3$   
 $64k^{18}$

10)  $(4r^4 w)^4$   
 $256r^{16} w^4$

11)  $(2h^2 \cdot h \cdot 3)^3$   
 $216h^9$

12)  $(3s^3)^2$   
 $9s^6$

13)  $(3b^2 \cdot 4b)^2$   
 $144b^6$

14)  $(2r^2 \cdot r^2 \cdot 3r)^3$   
 $216r^{15}$

