

Name : _____

Score : _____

Teacher : _____

Date : _____

Simplify the exponents.

1) $(3d^3 \cdot d^2 \cdot 4d)^2$

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

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

8) $(3w \cdot 4w^3 \cdot w^2)^3$

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

9) $(2g^2 \cdot g^3)^3$

4) $(4s^4)^4$

10) $(4s^3 \cdot s)^2$

5) $(2b^3 \cdot 4b)^2$

11) $(4r^2 \cdot 3r \cdot r^3)^3$

6) $(3h^3 \cdot 2h^2)^2$

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

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Operations with Exponents

Simplify the exponents.

1) $(3d^3 \cdot d^2 \cdot 4d)^2$

$144d^{12}$

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

$144d^{12}$

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

$1728r^9$

4) $(4s^4)^4$

$256s^{16}$

5) $(2b^3 \cdot 4b)^2$

$64b^8$

6) $(3h^3 \cdot 2h^2)^2$

$36h^{10}$

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

$8z^{18}$

8) $(3w \cdot 4w^3 \cdot w^2)^3$

$1728w^{18}$

9) $(2g^2 \cdot g^3)^3$

$8g^{15}$

10) $(4s^3 \cdot s)^2$

$16s^8$

11) $(4r^2 \cdot 3r \cdot r^3)^3$

$1728r^{18}$

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

$36s^6$

