

Simplifying a Power of a Power

Bronze

Write each of the following as a single power of 2.

a.
$$(2^3)^2$$

e.
$$(2^2)^4$$

i.
$$(2^{12})^3$$

b.
$$(2^4)^3$$

f.
$$(2^{10})^8$$

c.
$$(2^6)^5$$

g.
$$(2^5)^7$$

d.
$$(2^{10})^2$$

h.
$$(2^2)^{11}$$





Silver

Write each of the following as a single power of x.

a. $(x^3)^2$

d. $(x^{10})^{12}$

g. $(x^7)^8$

b. $(x^5)^8$

e. $(x^7)^6$

h. $(x^2)^{13}$

c. $(x^2)^5$

f. $(x^4)^{11}$





Gold

Simplify each of the following.

a. $(6x^2)^2$

b. $(3y^3)^3$

c. $(4m^2)^2$

e. $(2c^2)^5$

i. $(5d^3)^3$

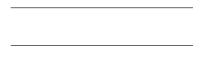
- f. $(7a^4)^2$

j. $(2v^4)^6$

- g. $(2m^3)^4$

d. $(5z^2)^2$

h. $(7x^2)^3$



Challenge

Simplify $(\frac{1}{2}x^2)^2$