# Exponents and Integers

Recall that exponents are just multiplication done over (and over and over). Thus, since you know how to do integer multiplication, you can do exponents with integers! Let's practice:

$(-5)^2$ $8^2$ $(-1)^{99}$

There is one tricky piece, however. If there is a negative number in front, but not enclosed in parentheses, then the exponent is happening to the number without the negative. The negative is then applied to the answer. Thus, all values of these type of expressions are always negative! Let's practice:

$-2^3$ $-3^2$ $-1^{100}$

Now, try some on your own:

**1.** Simplify each expression.

**(a)** $(-8)^2$ **(b)** $(-1)^{71}$ **(c)** $-3^4$

**(d)** $\dfrac{10}{-2}$ **(e)** $\dfrac{-10}{-2}$ **(f)** $\dfrac{-10}{2}$

**(g)** $(-3)^3$

**(h)** $(-1)^{44}$

**(i)** $(-1)^{43}$

**(j)** $-6+3-4+-2-(-3)$

**(k)** $2-3+4-(-1)+3$

**(l)** $(-2)(-1)(-3)(-4)$

**(m)** $(-5)(-2)(-1)(-3)(-1)$

**(n)** $6+-8$

**(o)** $6+(-6)$

**(p)** $-4\cdot-5$

**(q)** $-4^3$

**(r)** $-4^2$

**(s)** $-7^2$

**(t)** $\dfrac{-15}{-3}$

**(u)** $\dfrac{-3}{15}$

**(v)** $-12 \div -3$

**(w)** $|-12| + 7$

**(x)** $-|-4| + 2$

**(y)** $-\sqrt{25} + 7 - (-2)$