

The flashcards in this set help review basic but tricky rules with negative exponents and negatives with exponents.

$$(-2)^3$$

$$(-2)^3 = -8$$

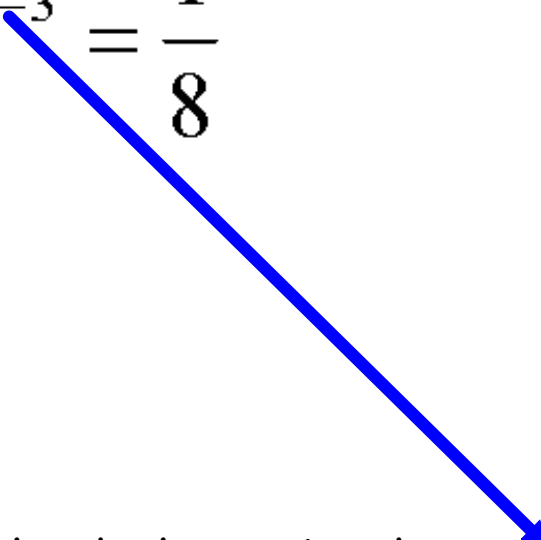
Take negative two and raise it to the third power.

$$(-2)^{-3}$$

$$(-2)^{-3} = -\frac{1}{8}$$

Do negative two raised to the third, and then take the reciprocal.

$$2^{-3}$$

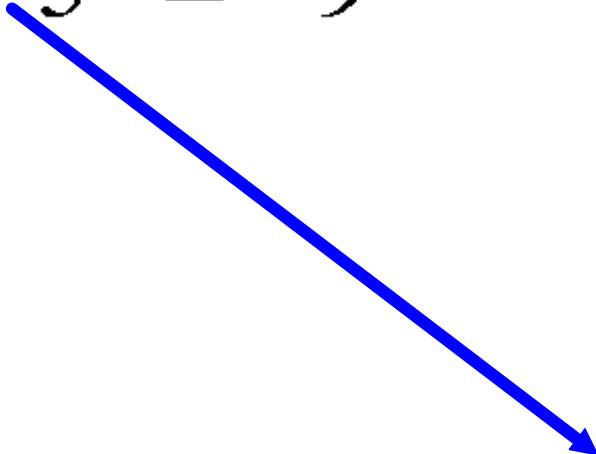
$$2^{-3} = \frac{1}{8}$$


Do two raised to the third, then take the reciprocal.

$$-3^2$$

This should be read as,
"The opposite (pause) of three squared."

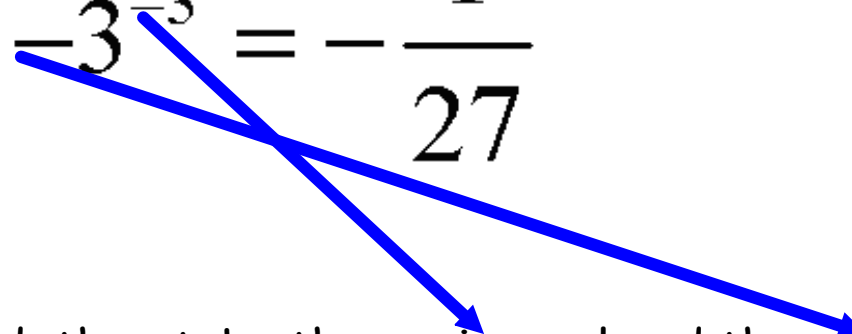
This is not the same as $(-3)^2$ which should be read as,
"Negative three squared."

$$-3^2 = -9$$


Do three to the second power, then take the opposite of it.

$$-3^{-3}$$

This is read
"The opposite (pause) of three to the negative third."

$$-3^{-3} = -\frac{1}{27}$$


Do three to the third, then take the reciprocal and the opposite.

$$\left(\frac{3}{2}\right)^{-2}$$

$$\left(\frac{3}{2}\right)^{-2} = \frac{4}{9}$$

Square the three halves and then take the reciprocal.

$$\sqrt{-81}$$

$$\sqrt{-81} = \textit{undefined}$$

You can not square root a negative number
(without getting an imaginary number).

$$\sqrt[3]{-27}$$

$$\sqrt[3]{-27} = -3$$

Three identical factors of what number make -27?

$$\sqrt[4]{625}$$

$$\sqrt[4]{625} = 5$$

Four identical factors of what number make 625?

$$\sqrt[3]{-8}$$

$$\sqrt[3]{-8} = -2$$

Three identical factors of what number make -8?

$$\frac{1}{4^{-2}}$$

$$\frac{1}{4^{-2}} = 16$$

Do one over four squared, then do the reciprocal.

$$\left(-\frac{1}{12}\right)^1$$

$$\left(-\frac{1}{12}\right)^1 = -\frac{1}{12}$$

$$\left(-\frac{1}{12}\right)^{-1}$$

$$\left(-\frac{1}{12}\right)^{-1} = -12$$