

POTENCIAS-EJERCICIOS

Fíjate en el ejemplo resuelto y efectúa los demás ejercicios:

1.-Calcula las siguientes potencias:

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

$$(-3)^4 = (-3) \cdot (-3) \cdot (-3) \cdot (-3) = 81$$

$$(-2)^4 =$$

$$(-5)^5 =$$

$$(-3)^7 =$$

$$(-1)^4 =$$

$$(-1)^5 =$$

$$(+1)^5 =$$

$$(+2)^4 =$$

$$(-5)^4 =$$

2.-Calcula y simplifica:

$$\left(\frac{1}{2}\right)^3 = \frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2} = \frac{1^3}{2^3} = \frac{1}{8}$$

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

$$\left(\frac{1}{5}\right)^4 =$$

$$\left(\frac{5}{4}\right)^5 =$$

$$\left(-\frac{2}{5}\right)^3 = \left(\frac{-2}{5}\right)^3 = \frac{(-2)^3}{5^3} = \frac{-8}{125} = -\frac{8}{125}$$

$$\left(-\frac{3}{4}\right)^5 =$$

$$\left(-\frac{1}{3}\right)^4 =$$

$$\left(-\frac{7}{5}\right)^3 =$$

3.- Calcula y simplifica:

$$(-5)^3 \cdot (-5)^4 = (-5)^{3+4} = (-5)^7 = -78125$$

$$(-3)^2 \cdot (-3)^3 =$$

$$(-2)^4 \cdot (-2)^2 =$$

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

$$(-4)^{-2} \cdot (-4)^4 =$$

$$\frac{5^5}{5^3} = 5^{5-3} = 5^2 = 25$$

$$\frac{3^7}{3^4} =$$

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

$$\frac{4^5}{4^2} =$$

4.-Calcula y simplifica:

$$\left((-3)^2\right)^5 = (-3)^{2 \cdot 5} = (-3)^{10} = 59049$$

$$\left(2^4\right)^2 =$$

$$\left((-2)^4\right)^2 =$$

$$\left((-5)^3\right)^3 =$$

$$\left((-3)^3\right)^5 =$$

$$3^{-5} = \frac{1}{3^5} = \frac{1}{243}$$

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

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

$$(-5)^{-4} = \frac{1}{}$$