How many moles are there in 4.557E+1 g of chlorine (Cl)?

Solution:

To determine number of moles of chlorine atoms let's use formula:

$n(Cl)=\frac{m(Cl)}{M(Cl)}=\frac{45.57\ g}{35.5\ g/mol}=1.28$ mol

(Where m – mass of chlorine in grams, M – molar mass of chlorine)

Answer:

There are 1.28 moles of chlorine in 4.557E+1 grams of chlorine atoms.