



How many gold (Au) atoms are in 5.00 grams of gold?

$$5.00 \text{ g Au} \times \left(\frac{1 \text{ mole Au}}{196.97 \text{ g Au}} \right) \times \left(\frac{6.022 \times 10^{23} \text{ atoms}}{1 \text{ mole Au}} \right) = 1.58 \times 10^{22} \text{ gold atoms}$$

Know 5.00g (less than 196.97g)
(less than 1 mole)
(less than 6.022×10^{23} atoms)