Question: 6.7 mol Br

Solution:

$$m(Br) = n(Br) \times M(Br) = 6.7 \text{ mol} \times 79.9 \frac{g}{mol} = 540 \text{ g}$$

$M(Br)$ is the molar mass.

$$N(Br) = n(Br) \times N_A = 6.7 \text{ mol} \times 6.02 \times 10^{23} \frac{atoms}{mol} = 4.0 \times 10^{24} atoms$$

N_A is the Avogadro number.

Answer:

6.7 mol of atomic bromine has a mass of 540 g and contains 4.0×10^{24} atoms.