Avogadro's Constant Answers!

① 1 mole H_2O = 18g and contains 6×10^{23} water molecules.
9g is 0.5 mole ∴ 3×10^{23}

② 1 mole of C_3H_8 = 44g " " 6×10^{23} molecules
11g is 0.25 mole ∴ 1.5×10^{23}

11 atoms × 1.5×10^{23} = 1.65×10^{24}

③ 1 mol of CO_2 = 44g $\quad \frac{1000g}{44} = 22.73 mol$

$22.73 mol \times 24 \overset{(mg)}{g} = 546g.$