1) $\left(\dfrac{275g\ Ca(OH)_2}{1}\right)\left(\dfrac{1\ mole\ Ca(OH)_2}{74.1g\ Ca(OH)_2}\right) = \boxed{3.71\ moles\ Ca(OH)_2}$

$\left(\dfrac{3.71\ moles\ Ca(OH)_2}{1}\right)\left(\dfrac{2\ moles\ O}{1\ mole\ Ca(OH)_2}\right)\left(\dfrac{16.0g\ O}{1\ mole\ O}\right) = \boxed{119g\ O}$

2) $\left(\dfrac{3.52\ moles\ Cr_2(SO_4)_3}{1}\right)\left(\dfrac{392.3g\ Cr_2(SO_4)_3}{1\ mole\ Cr_2(SO_4)_3}\right) = \boxed{1380g\ Cr_2(SO_4)_3}$

$\left(\dfrac{3.52\ moles\ Cr_2(SO_4)_3}{1}\right)\left(\dfrac{3\ moles\ S}{1\ mole\ Cr_2(SO_4)_3}\right)\left(\dfrac{32.1g\ S}{1\ mole\ S}\right) = \boxed{339g\ S}$

$\left(\dfrac{3.52\ moles\ Cr_2(SO_4)_3}{1}\right)\left(\dfrac{12\ mole\ O}{1\ mole\ Cr_2(SO_4)_3}\right)\left(\dfrac{6.02\times10^{23}\ Atoms\ O}{1\ mole\ O}\right) = \boxed{2.54\times10^{25}\ Atoms\ O}$

3) $\left(\dfrac{8.90\times10^{23}\ Fu\ Fe(ClO_3)_2}{1}\right)\left(\dfrac{1\ mole\ Fe(ClO_3)_2}{6.02\times10^{23}\ Fu\ Fe(ClO_3)_2}\right)\left(\dfrac{222.9g\ Fe(ClO_3)_2}{1\ mole\ Fe(ClO_3)_2}\right)$

$\boxed{= 330.\ g\ Fe(ClO_3)_2}$

$\left(\dfrac{330.\ g\ Fe(ClO_3)_2}{1}\right)\left(\dfrac{1\ mole\ Fe(ClO_3)_2}{222.9g\ Fe(ClO_3)_2}\right)\left(\dfrac{2\ mole\ Cl}{1\ mole\ Fe(ClO_3)_2}\right) = \boxed{2.96\ mole\ Cl}$

$\left(\dfrac{330.\ g\ Fe(ClO_3)_2}{1}\right)\left(\dfrac{1\ mole\ Fe(ClO_3)_2}{222.9g\ Fe(ClO_3)_2}\right)\left(\dfrac{1\ mole\ Fe}{1\ mole\ Fe(ClO_3)_2}\right)\left(\dfrac{55.9g\ Fe}{1\ mole\ Fe}\right)$

$\boxed{= 82.8g\ Fe}$

4)

$$\left(\frac{60.0g \ C_9H_8O_4}{1}\right)\left(\frac{1 \ mole \ C_9H_8O_4}{180.0g \ C_9H_8O_4}\right)\left(\frac{8 \ mole \ H}{1 \ mole \ C_9H_8O_4}\right)\left(\frac{6.02\times10^{23} \ Atoms \ H}{1 \ mole \ H}\right)$$

$$\boxed{= 1.61 \times 10^{24} \ Atoms \ H}$$

5) 4

6) 5

7) 4

8) 4

9) 4

10) $6.8 \times 10^{29} \ m^2$

11) $3.3 \times 10^8 \ m$

12) $1.80 \times 10^7 \ m^2$

1