p. 198, #55

a) 15.5 g SiO_2 = ? mol SiO_2

$$15.5\ \text{g}\ SiO_2 \left| \frac{1\ \text{mol}\ SiO_2}{60.084\ \text{g}\ SiO_2} \right.$$

$$= 0.257\ \text{mol}\ SiO_2$$

p. 198 #56

c) 0.780 mol $Ca(CN)_2$ = ? g $Ca(CN)_2$

$$0.780\ \text{mol}\ Ca(CN)_2 \left| \frac{92.114\ \text{g}\ Ca(CN)_2}{1\ \text{mol}\ Ca(CN)_2} \right.$$

$$= 71.849\ \text{g}\ Ca(CN)_2$$

$$= 71.8\ \text{g}\ Ca(CN)_2$$

p.198, #55

d) 5.96 g KOH = ? mol KOH

$$5.96\ \text{g KOH} \times \frac{1\ \text{mol KOH}}{56.104\ \text{g KOH}} = 0.106\ \text{mol KOH}$$

p.198, #56 72.1498 J/mol

a. 1.50 mol C_5H_{12} = ? g C_5H_{12}

$$1.50\ \text{mol } C_5H_{12} \times \frac{72.1498\ \text{g } C_5H_{12}}{1\ \text{mol } C_5H_{12}} = 108.225\ \text{g } C_5H_{12}$$