

7. a) $C_{12}H_{22}O_{11}$

$$\%C = \frac{144.0g}{342.0g} \times 100 = 42.1\%C$$

$$\%H = \frac{22.0g}{342.0g} \times 100 = 6.43\%H$$

$$\%O = \frac{176.0g}{342.0g} \times 100 = 51.5\%O$$

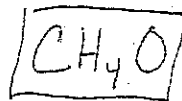
b) $Al_2(C_2O_4)_3$

$$\%Al = \frac{54.0g}{294.0g} \times 100 = 18.4\%Al$$

8. a) $37.5g C \times \frac{1 \text{ mol}}{12.0g} = 3.13 \text{ mol } C \approx 3.11 \text{ mol } C$

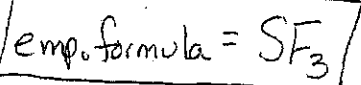
$12.6g H \times \frac{1 \text{ mol}}{1.0g} = 12.6 \text{ mol } H \approx 12.6 \text{ mol } H$

$49.9g O \times \frac{1 \text{ mol}}{16.0g} = 3.11 \text{ mol } O$



b) $18.0g S \times \frac{1 \text{ mol}}{32.1g S} = 0.561 \text{ mol } S$

$32.0g F \times \frac{1 \text{ mol}}{19.0g F} = 1.68 \text{ mol } F$



Molar Mass = 178.1g
 Mass of Emp. formula = 89.1g

$\frac{178.1}{89.1} = 2$

