Quiz Chapter 8 & 9 − Question One

Michael Brodskiy

Instructor: Mr. Morgan

January 14, 2021

$$\mathrm{C_3H_8} + 5\,\mathrm{O_2} \longrightarrow 3\,\mathrm{CO_2} + 4\,\mathrm{H_2O}$$
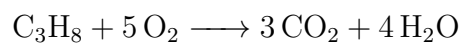
$$\frac{30}{50} = .6[\mathrm{mol_{C_3H_8}}]$$

$$.6 \cdot -2220 = -1332[\mathrm{kJ}]$$

$$Q = CM\Delta T \tag{1}$$

$$1332000 = 4.18(8000)\Delta T$$

$$\Delta T = \frac{1332000}{4.18 \cdot 8000}$$

$$= 39.83[\mathrm{K}]$$