P #28

Ch 12 - pg 385

a) $W = 200\,J$
$e = 30\%$

$e = \left|\frac{W}{Q_H}\right|$ so $.30 = \frac{200\,J}{Q_H}$

$$Q_H = 667\,J$$

b) $Q_H = 667\,J$
$W = 200\,J$

$W = Q_H - Q_C$

$200\,J = 667\,J - Q_C$

$$Q_C = 467\,J$$