

1 B<sub>2</sub>

ADDITIONAL PAGE FOR ANSWERING QUESTION 1.

$$c. K_c = \frac{[5.95 \times 10^{-3} \text{ mol L}^{-1}][2.98 \times 10^{-3} \text{ mol L}^{-1}]}{[0.080 \text{ mol L}^{-1}]^2}$$
$$= \underline{\underline{0.165}}$$

d.  $P_{\text{total}} = P_{\text{H}_2} + P_{\text{S}_2} + P_{\text{H}_2\text{S}}$

$$PV = nRT$$

$$P = \frac{nRT}{V}$$

$$V = 1.25 \text{ L}$$

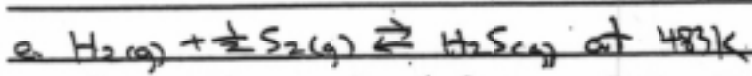
$$n = 3.72 \times 10^{-2} \text{ mol}$$

$$P = \frac{(3.72 \times 10^{-2} \text{ mol})(0.0821 \text{ L atm mol}^{-1} \text{ K}^{-1})(483 \text{ K})}{(1.25 \text{ L})}$$

$$R = 0.0821 \text{ L atm mol}^{-1} \text{ K}^{-1}$$

$$T = 483 \text{ K}$$

$$= \underline{\underline{1.18 \text{ atm}}}$$



This would equal to the inverse of the constant value in part b.

$$= \underline{\underline{60.6}}$$