

Rich math exam - Euan Shore
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Question 1

$$a.1 \quad V_{min} = \sqrt{\frac{W}{S} \times \frac{2}{P} \times \frac{1}{C_L}}$$

$$\frac{(V_{min})^2 \times P \times C_L}{2} = \frac{W}{S}$$

$$S = \frac{W}{(0.5)(V_{min})^2 \times P \times C_L}$$

$$S = \frac{490332}{(0.5)(200)^2 \times 0.41 \times 0.52}$$

$$= 5.22 \text{ m}^2$$

b.1

$$1.7 \quad \frac{8x-3}{5} = \frac{-5x+6}{-3} =$$

$$-3(8x-3) = 5(-5x+6)$$

$$-24x - 9 = -25x + 30$$

$$-24x + 25x = 30 + 9$$

$$x = 39$$