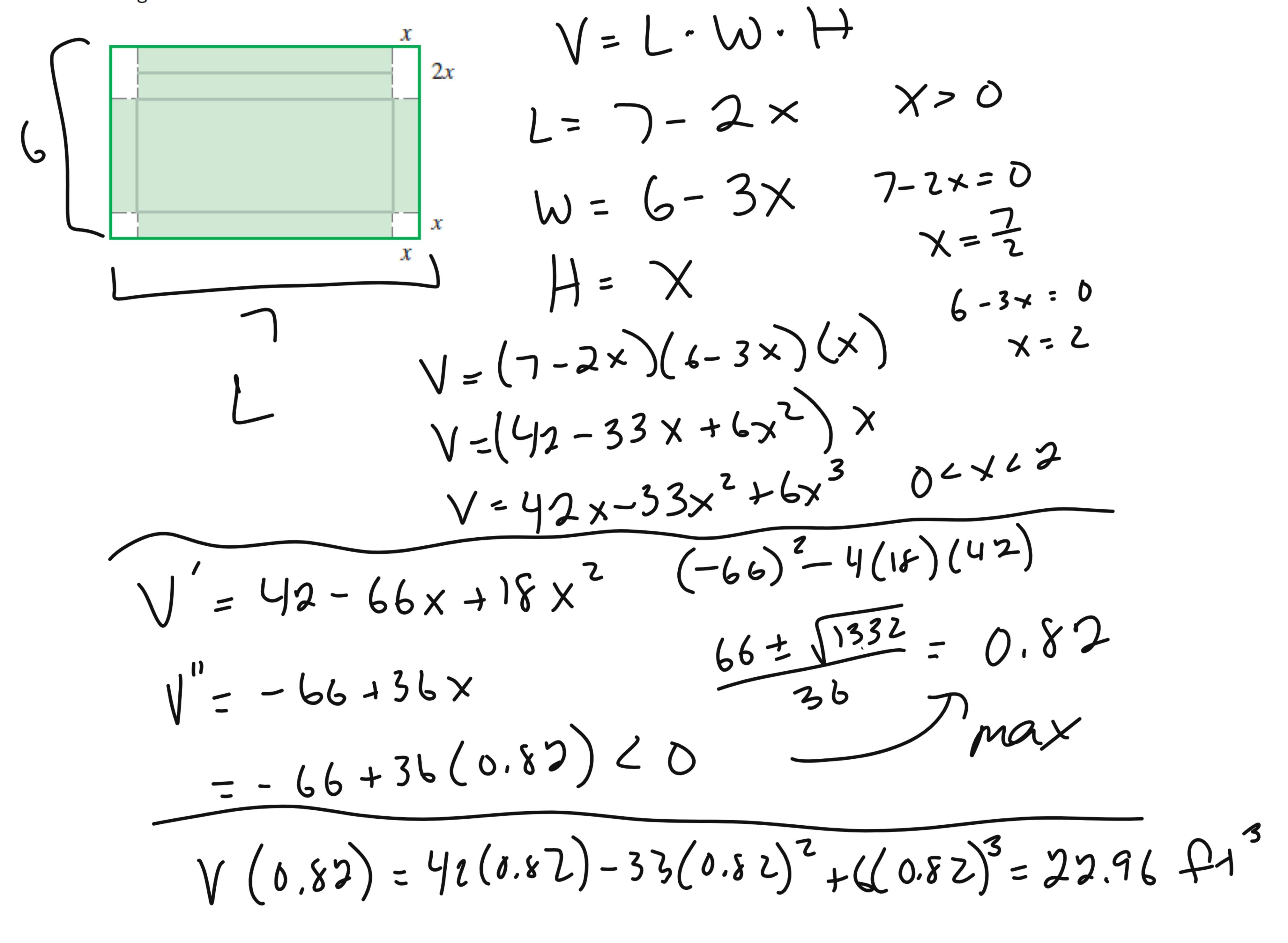
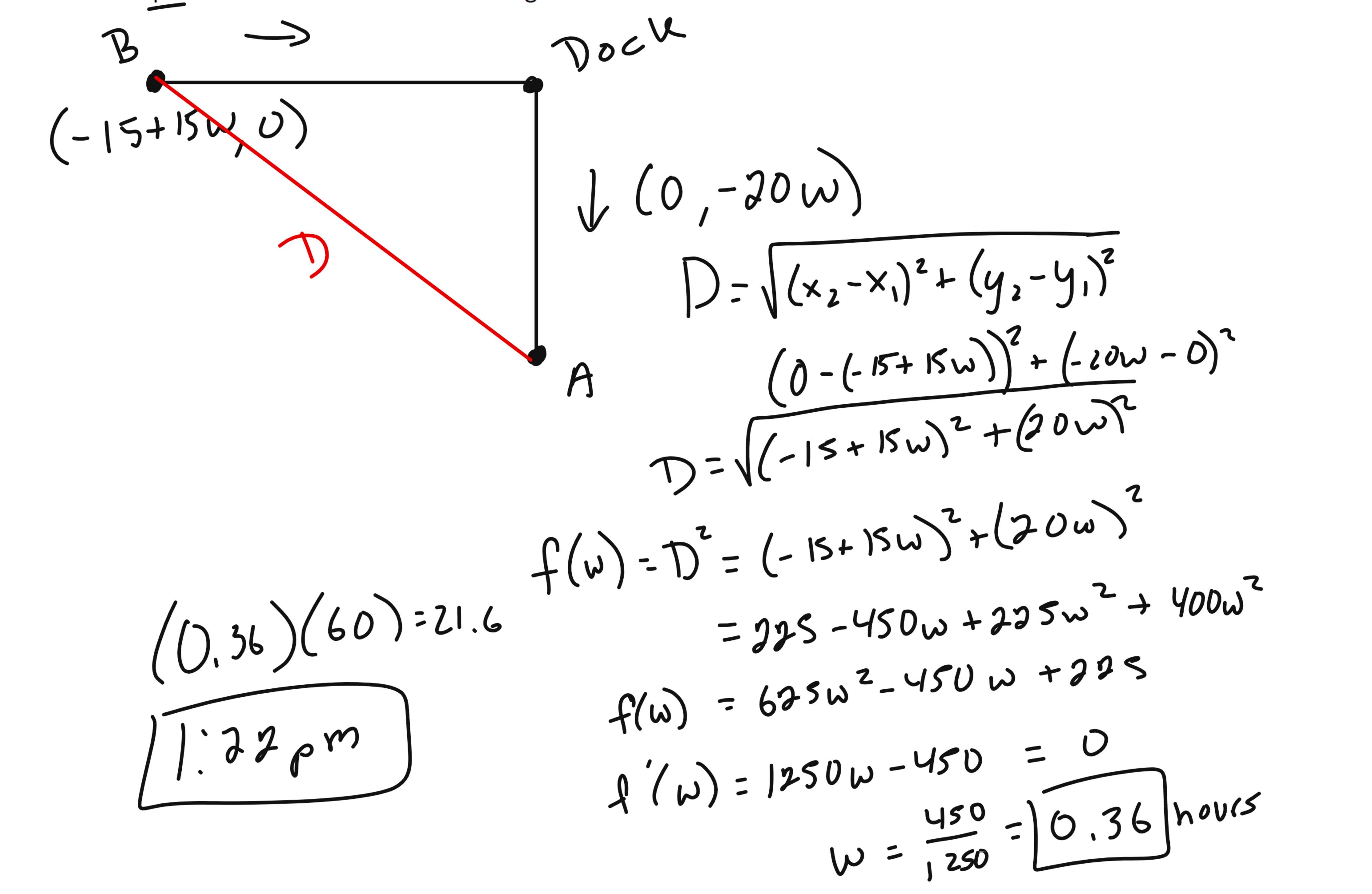
BitPape Share Knowledge

10) A box with an open top is to be constructed from a 7 ft by 6 ft rectangular piece of cardboard by cutting out squares or rectangles as shown in the figure and bending up the sides. Find the largest volume the box can have.



11) A boat leaves the dock at 1pm and travels due south at a speed of 20 km/h. Another boat has been heading due east at 15 km/h and reaches the same dock at 2pm. How many minutes after 1pm were the two boats closest together?



12)
$$\int_{1}^{16} x^{-\frac{3}{4}} dx$$

$$\int_{1}^{16}$$

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13)
$$\int (x^{1.3} + 11x^{4.5}) dx$$

$$\frac{2.3}{2.3} + \frac{||\times|}{5.5} + C = \frac{|\times|}{2.3} + 2 \times |\times| + C$$

14)
$$\int \frac{e^{x}}{(7-e^{x})^{2}} dx \quad v = 7 - e^{x}$$

$$dv = -e^{x} dx$$

$$-dv = e^{x} dx$$

$$\int \frac{-1}{v^{2}} dv = \int -v^{-2} dv = -\left(\frac{v^{-1}}{-1}\right) = \frac{1}{v}$$

$$\frac{1}{7-e^{x}} + c$$