

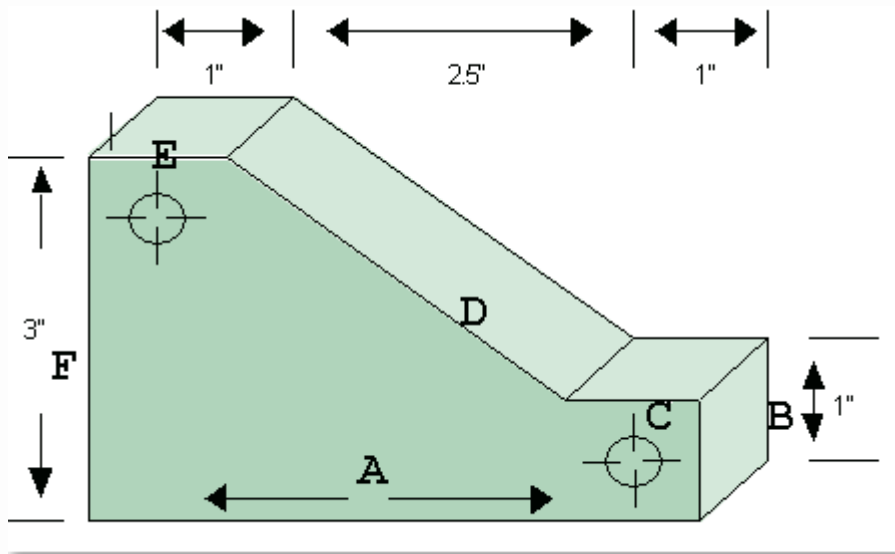
Algebra/Geometry: Manufacturer

Lawn Mower Factory

Job description: Manufacture lawn mower parts & lawn mowers

Problem:

A worker in a lawnmower factory is asked to make the part shown below for a new lawnmower design. To program a machine to cut the part out, the worker must find the slope and length of edge D.



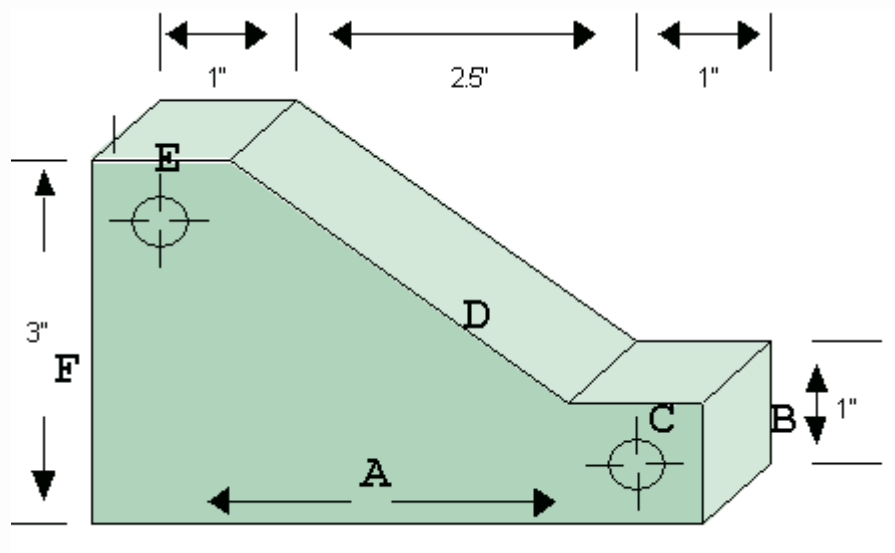
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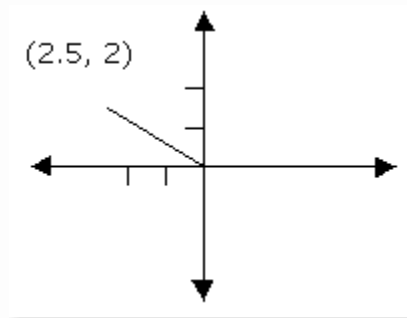
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SOLUTION:



Use Distance Formula

$$m = \text{slope} = \frac{\text{rise}}{\text{run}} \quad d = \sqrt{(0 - 2.5)^2 + (0 - 2)^2}$$

$$m = 2 \div 2.5 = .8$$

$$d = \sqrt{(6.25 + 4)} = \sqrt{10.25} = 3.202$$