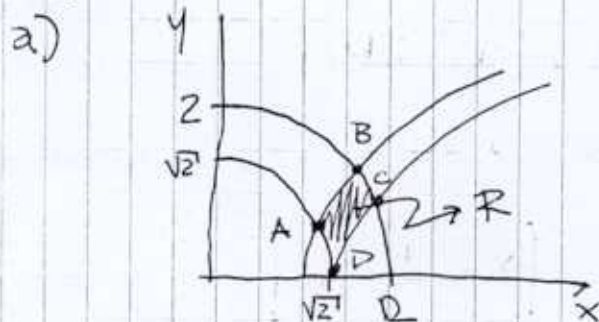


E| nuevo costo es :

$$\text{Costo}' = \frac{a b^2 Q^2}{(a+b)^2} + \frac{b a^2 Q^2}{(a+b)^2} + \frac{a b^2 Q^2 r^2}{(100)^2 (a+b)^2} + \frac{b a^2 Q^2 r^2}{(100)^2 (a+b)^2} \\ + \frac{a b^2 \cdot 2 Q^2 r}{(100)(a+b)^2} + \frac{b a^2 \cdot 2 Q^2 r}{100 (a+b)^2}$$

$$\Rightarrow \text{Nuevo costo} = \text{Costo} + \underbrace{\frac{r^2}{(100)^2} \text{Costo} + \frac{2r}{100} \text{Costo}}_{\text{aumento.}}$$

Pregunta 2



b)

$$D = (\sqrt{2}, 0)$$

$$\begin{cases} x^2 + y^2 = 2 \\ x^2 - y^2 = 1 \end{cases}$$

$$2x^2 = 3 \Rightarrow x^2 = \frac{3}{2} \Rightarrow x = \frac{\sqrt{6}}{2} \text{ en el primer cuadrante}$$

$$\Rightarrow \frac{6}{4} + y^2 = 2 \Rightarrow y^2 = \frac{1}{2} \Rightarrow \boxed{y = \frac{\sqrt{2}}{2}}$$

$$\Rightarrow A = \left(\frac{\sqrt{6}}{2}, \frac{\sqrt{2}}{2} \right)$$