



**NOMBRE DEL ALUMNO:** LUIS E. GUILLÉN M.

**NOMBRE DEL PROFESOR:** PEDRO A. GARCÍA L.

**MATERIA:** RESISTENCIAS DE MATERIALES DE  
CONSTRUCCIÓN.

**NOMBRE DEL TRABAJO:** EXAMEN UNIDAD 1.

**GRADO:** 4º

**GRUPO:** A.

$$D1 = c = \sqrt{a^2 + b^2} = \sqrt{(92.5906)^2 + (160.7107)^2} = \sqrt{25,827.9290 + 8,573.0192} =$$

$$D1 = \sqrt{34,400.9482} = D1 = \underline{185.4749} //$$

$$D2 = b = \sqrt{c^2 - a^2} = \sqrt{(50)^2 - (25)^2} = \sqrt{2,500 - 625} = \sqrt{1,875} =$$

$$D2 = \underline{43.3012} //$$

$$D3 = \text{Sen}(x) = \frac{CO}{H} = \frac{CO}{\text{Sen}(x)} = H = \frac{70.7107}{\text{Sen}(45)} = 99.99 = D3 = \underline{100} //$$

$$D4 = b = \sqrt{c^2 - a^2} = \sqrt{(100)^2 - (70.7107)^2} = \sqrt{10,000 - 5,000.0030} =$$

$$D4 = \sqrt{4999.997} = D4 = \underline{70.7106} //$$

$$\alpha^1 = \cos^{-1} \left( \frac{CA}{H} \right) = \cos^{-1} \left( \frac{160.71}{185.45} \right) = \alpha^1 = \underline{30^\circ}$$

$$\alpha^2 = \cos^{-1} \left( \frac{CA}{H} \right) = \cos^{-1} \left( \frac{25}{50} \right) = \alpha^2 = \underline{60^\circ}$$