Question

Solve triangle ABC which have angle A=25 25, angle B=60 51 and a=3.82. Find c.

a)3-6

b)7.0

c)7.4

d)8.8

Solution

Angle

$$C=180° - (25.25° + 60.51°) = 94.24°$$

Using the sine law

$$\frac{c}{\sin C} = \frac{a}{\sin A},$$

hence

$$c = a\frac{\sin C}{\sin A} = 3.82\frac{\sin 94.24°}{\sin 25.25°} \approx 8.8$$

Answer: d) 8.8.