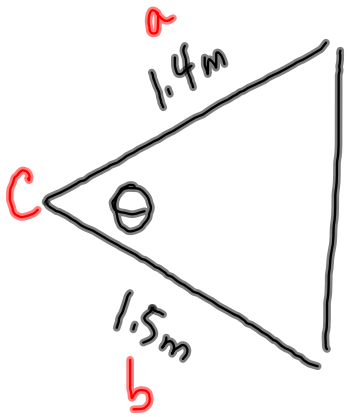
From Hw (p 260)

13.




Law of Cosines

$c^2 = a^2 + b^2 - 2ab\cos C$

$(0.17)^2 = (1.4)^2 + (1.5)^2 - 2(1.4)(1.5)\cos\theta$

$0.0289 = 1.96 + 2.25 - 4.2\cos\theta$

$0.0289 = 4.21 - 4.2\cos\theta$

$-4.1811 = -4.2\cos\theta$

$\cos\theta = \frac{-4.1811}{-4.2}$

$\cos\theta = 0.9955$

$\theta = \cos^{-1}(0.9955)$

$\boxed{\theta = 5.4^\circ}$

## Law of Sines

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

- need a side and the angle it is opp. to
- need an angle
- watch out for: SSA..... there might be more than one answer if solving for an angle. (ambiguous case of Law of Sines)

## Law of Cosines

$$c^2 = a^2 + b^2 - 2ab\cos C$$

- use if SAS and want the third side
- use to find an angle if you know all 3 sides