53p527

a)

Le triangle AHC est rectangle en H

$\tan(\widehat{HAC}) = \frac{HC}{HA}$

$\tan(\widehat{HAC}) = \frac{0,8}{2,8}$

$\widehat{HAC} = \arctan(\frac{0,8}{2,8})$

$\widehat{HAC} \approx 16^{\circ}$

b)

Le triangle AHB est rectangle en H

$\tan(\widehat{HAB}) = \frac{HB}{HA}$

$\tan(\widehat{HAB}) = \frac{2,3}{2,8}$

$\widehat{HAB} = \arctan(\frac{2,3}{2,8})$

$\widehat{HAB} \approx 39°$

c)

$\widehat{CAB} = \widehat{HAC} - \widehat{HAB} = 39 - 16 = 23^{\circ}$

65p530

a) Le triangle ABH est rectangle en H. $\widehat{ABC} = \widehat{ABH}$

$\sin(\widehat{ABC}) = \frac{AH}{AB}$

$\sin(\widehat{ABC}) = \frac{6}{10}$

b)

$\widehat{ABC} = \arcsin\left(\frac{6}{10}\right) \approx 36,87^{\circ}$

Dans le triangle ABC rectangle en A :

$$\cos(\widehat{ABC}) = \frac{AB}{BC}$$

$$\cos(36{,}87) = \frac{10}{BC}$$

$$\frac{\cos(36{,}87)}{1} = \frac{10}{BC}$$

$$BC = \frac{10 \times 1}{\cos(36{,}87)}$$

$$BC \approx 12{,}5\,cm$$