

2015

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2001090

ACHA 4006

Calum Campbell

Further maths

2)

i) $\sin x = 0.65$

$\sin^{-1}(0.65) = 40.54^\circ$

$180 - 40.54 = 139.46^\circ$

ii) $7 \cos x = 4$

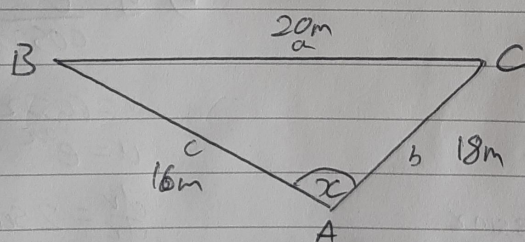
$\cos^{-1}(\frac{4}{7})$

iii) $\tan x = -0.22$

$\tan^{-1}(-0.22) = 12.41$

$180 + 12.41 = 192.41^\circ$

3)



$a^2 = b^2 + c^2 - 2bc \cos A$

$20^2 = (18)^2 + (16)^2 - 2(18)(16) \cos A$

$400 = 324 + 256 - 576 \cos A$

$400 - (324 + 256) = -576 \cos A$

$-180 = -576 \cos A$

$\frac{-180}{-576} = \cos A$

$\cos A = 0.3125$

$\cos^{-1}(0.3125)$

$A = 71.79^\circ$