- 9 It is given that α and β are such that $\alpha + \beta = -\frac{5}{2}$ and $\alpha\beta = -5$
 - (a) Form a quadratic equation with integer coefficients that has roots α and β

Without solving the equation found in part (a)

- (b) find the value of
 - (i) $\alpha^2 + \beta^2$
 - (ii) $\alpha^3 + \beta^3$ (5)
- (c) Hence form a quadratic equation with integer coefficients that has roots

$\left(o\right)$	$\left(x-\frac{1}{\alpha^2}\right)$ and	$\left(\beta - \frac{1}{\beta^2}\right)$	(6)
-------------------	---	--	-----

Question 9 c	ontinued			



DO NOT WRITE IN THIS AREA

~~~~
^/ <u>XX</u> XX
$\otimes \Box \otimes$
Ö
$\sim\sim\sim$
$\times \times $
$\times$
$\times \times \longrightarrow \times \times$
$\times \odot \times$
$\times = \times$
$\times$
XXXXX
5
XXXXX
× 55 ×
<b>77</b>
XXXXX
$\times = \times$
$\times \times $
111
XXXXXXXXX
$\times \times  \times \times \times$
$\times \times \times \times \times \times$
× <u>/XX</u> X/
×× <del>74×</del> ××
<u>Un</u>
$\times$
<b>&gt;&gt;</b>
$\cdots$
<b>.</b> 33 ×
$\times \times $
XIIIX
$\times$
XXXXX
$\times$
$\times \times $
$\times\times\times\times$
$\times\!\!\times\!\!\times\!\!\times\!\!\times$
~~~~
\times
$\times\!\!\times\!\!\times\!\!\times$
>>>>
$\times\!\!\times\!\!\times\!\!\times\!\!\times$

O
O
O
D0
DONO
DO NOT W
DO NOT W
DO NOT WE
DO NOT WRITE
DO NOT WRITE
DO NOT WRITE
DO NOT WRITE!
DO NOT WRITE IF
DO NOT WRITE IF
DO NOT WRITE IN
DO NOT WRITE IN
DO NOT WRITE IN T
DO NOT WRITE IN T
DO NOT WRITE IN T
DO NOT WRITE IN TH
DO NOT WRITE IN TH
DO NOT WRITE IN THI
DO NOT WRITE IN THI
DO NOT WRITE IN THI
DO NOT WRITE IN THIS
DO NOT WRITE IN THIS
DO NOT WRITE IN THIS A
DO NOT WRITE IN THIS A
DO NOT WRITE IN THIS AF
DO NOT WRITE IN THIS AF
DO NOT WRITE IN THIS AF
DO NOT WRITE IN THIS ARE
DO NOT WRITE IN THIS ARE
DO NOT WRITE IN THIS ARE
DO NOT WRITE IN THIS AF

Question 9 continued	

