Question	Scheme	Marks
6(a)	(i) $\alpha+\beta=-\frac{5}{A}$	B1
	(ii) $\alpha\beta=-\frac{12}{A}$	B1
		(2)
(b)	$\left(\alpha-\frac{3}{\beta}\right)+\left(\beta-\frac{3}{\alpha}\right)=(\alpha+\beta)-3\left(\frac{\alpha+\beta}{\alpha\beta}\right)=-\frac{5}{A}-3\left(\frac{-5}{A}\right)\times\frac{-A}{12}$	M1
	$-\frac{5}{A}-\frac{15}{12}=\frac{5}{4}\Rightarrow A=...$	dM1
	$A=-2$	A1
		(3)
(c)	$\left(\alpha-\frac{3}{\beta}\right)\left(\beta-\frac{3}{\alpha}\right)=\alpha\beta-6+\frac{9}{\alpha\beta}=-\frac{12}{A}-6+\frac{9}{-12/A}$	M1
	$-\frac{12}{"-2"}-6-\frac{9"-2"}{12}=\frac{B}{4}\Rightarrow B=...$	dM1
	$B=6$	A1
		(3)
		(8 marks)

Notes:

(a)

(i) B1: Correct expression for $\alpha+\beta$

(ii) B1: Correct expression for $\alpha\beta$

(b)

M1: Attempts the sum of roots for second equation in terms of A using results from (a). Allow slips in signs.

dM1: Equates the sum of roots to $\frac{5}{4}$ and solves for A. Depends on the previous M mark.

A1: $A=-2$

(c)

M1: Attempts the product of roots for second equation in terms of A using results from (a). Allow slips in signs. May be using their value of A or A itself

dM1: Equates the product of roots to $\frac{B}{4}$ and solves for B using their value of A. Depends on first M mark of (c).

A1: $B=6$