

5	(i)	eg $1 + 3 = 4$ or $4 + 5 = 9$ or $9 + 7 = 16$	B1 [1]	1.1	or $25 + 11 = 36$ or any correct example	
5	(ii)	If $m - n = 1$ (or -1) then $(m - n)(m + n)$ could be prime	E1 [1]	2.3	or One of the factors of p could be 1	(or if $m + n = 1$)
5	(iii)	Let $S = n^2$ \Rightarrow Other square number is $(n + 1)^2$ $\Rightarrow 853 = (n + 1)^2 - n^2 = 2n + 1$ $\Rightarrow n = 426$	M1 M1 A1	3.1a 2.2a 1.1	or Other square number is $(\sqrt{S} + 1)^2$ $\Rightarrow 853 = (\sqrt{S} + 1)^2 - S = 2\sqrt{S} + 1$ $\Rightarrow \sqrt{S} = 426$	$853 = m^2 - n^2$ & $m - n = 1$ $\Rightarrow 853 = m + n$ $\Rightarrow 853 = 2n + 1$ $\Rightarrow n = 426$

Question		Answer	Mks	AO	Guidance	
		$\Rightarrow S = 181476$	A1	3.2a	$\Rightarrow S = 181476$ $m - n = 1, \quad m + n = 853$ $2m = 854$ $m = 427 \quad n = 426$ $n^2 = 181476$	$\Rightarrow S = 181476$ T & I: 426 seen M1M1A1 $S = 181476$ A1
			[4]			