

December 23rd

If you add the square of Chelsea's age to the age of Jamie, the sum is 81. However if you add the square of Jamie's age to the age of Chelsea, the result is 297.

Find Chelsea's and Jamie's ages.



$$c^2 + j = 81 \quad \text{hence} \quad j = 81 - c^2$$

$$c + j^2 = 297$$

substituting gives

$$c + (81 - c^2)^2 = 297$$

Hence

$$c^4 - 162c^2 + c + 6561 = 297$$

Solving give only one integer solution

$$c = 8, \text{ hence } j = 17$$

Chelsea is 8

Jamie is 17