

- 5 (a) Determine the set of values of n for which $\frac{n^2-1}{2}$ and $\frac{n^2+1}{2}$ are positive integers. [3]

A 'Pythagorean triple' is a set of three positive integers a , b and c such that $a^2 + b^2 = c^2$.

- (b) Prove that, for the set of values of n found in part (a), the numbers n , $\frac{n^2-1}{2}$ and $\frac{n^2+1}{2}$ form a Pythagorean triple. [2]