

6. Complete the table below. The first one has been done for you.

For each statement you must state if it is always true, sometimes true or never true, giving a reason in each case.

Statement	Always True	Sometimes True	Never True	Reason
The quadratic equation $ax^2 + bx + c = 0$ , ( $a \neq 0$ ) has 2 real roots.		✓		It only has 2 real roots when $b^2 - 4ac > 0$ . When $b^2 - 4ac = 0$ it has 1 real root and when $b^2 - 4ac < 0$ it has 0 real roots.
(i)  When a real value of $x$ is substituted into $x^2 - 6x + 10$ the result is positive.				
(ii)  If $ax > b$ then $x > \frac{b}{a}$				
(iii)  The difference between consecutive square numbers is odd.				