



Q	Answer	Marks
1	$(x - 3)^2 + 2 \geq 2 > 0$	3
2	$\frac{9}{n^2}$	2
3	6r 3	3
4	(3, 5) maximum	3
5	(-5, -27)	3
6	a) $(x - 3)^2 + 2$ b) (3, 2)	3
7	$(x + 7)/2$	3
8	$\frac{3}{4}$	2
9	$x = 2$	3
10	0.8	2
11	$\frac{20}{n(n-1)}$	2
12	$\sqrt{3}$	2
13	6 cm	2
14	$(n + 1)^2 - n^2 = 2n + 1 = n + (n + 1)$	3
15	$(n - 1)^2 + n^2 + (n + 1)^2 = 3n^2 + 2$	3
16	$3(x - 2)^2 - 7$; (2, -7)	3
17	Using the isosceles triangles OAC and OBC, angle ACB = $x + y$ where $2x + 2y = 180$, so angle ACB = 90 degrees	3
18	(-3, -5) minimum	3
19	$(3n + 1)^2 - (3n - 1)^2 = 12n$, a multiple of 12	3
20	a) 3 m/s^2 b) 576 m	3

Full worked solutions, written out by hand, are on the solutions sheet for this sheet.