



Q	Answer	Marks
1	$(x + 5)^2 - 18$	2
2	$k = 2$	2
3	a) She should plot each cumulative frequency at the upper end (upper class boundary) of the interval, not the midpoint b) 6 c) 15%	3
4	She squared the 3 as well: the power applies only to the 2. Correct $y = 3 \times 2^2 = 12$	2
5	£10222.08	3
6	6π cm	2
7	3	2
8	Region bounded by $y = 3$ (solid, below), $y = x - 1$ (solid, above) and $x = 0$ (dashed, right of); vertices (0, -1), (0, 3), (4, 3)	3
9	12	2
10	a) $x = 2$ and $x = 4$ b) $x = 3$	2
11	$53^2 - 47^2 = (53 + 47)(53 - 47) = 100 \times 6 = 600$	3
12	$x = \frac{3}{2}, x = -4$	3
13	$y = 3x - 7$	3
14	15/22	3
15	53°	3
16	$n^2 + n = n(n + 1)$, the product of consecutive integers, so it is even	2
17	a) $b^2 - 4ac = 3^2 - 4(1)(7) = -19$, which is negative, so there are no real solutions b) One repeated real solution, because $b^2 - 4ac = 36 - 36 = 0$	4
18	14/36	2
19	(-12, 17)	2
20	(-2, -1), (-4, -1), (-4, -2)	2

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