

2	(i)	$3^2 - 4k = 0$ $k = \frac{9}{4}$ or 2.25	M1 A1 [2]	1.2 $x^2 + 3x + k = (x + a)^2 = x^2 + 2ax + a^2$ $\Rightarrow a = 1.5 \Rightarrow k = 1.5^2$ 1.1	or $(x + 1.5)^2 - 2.25 + k = 0$
2	(ii)	$(3 - x)(2 + x) > 0$ or $(x - 3)(x + 2) < 0$ $-2 < x < 3$ or $3 > x > -2$ ISW or $x \in (-2, 3)$	M1 A1 [2]	oe Allow $(3 - x)(2 + x)$ or $(x - 3)(x + 2)$ Allow $x > -2, x < 3$ or $x > -2$ and $x < 3$ Correct ans: BOD M1A1	or -2 and 3 seen $x > -2$ or $x < 3$ M1A0 unless followed by ans