

Question	Answer	Marks	Guidance
(a)	State a correct unsimplified version of the $x^2$ or the $x^4$ term of the expansion of $(2 - x^2)^{-2}$ or $\left(1 - \frac{1}{2}x^2\right)^{-2}$	<b>M1</b>	$\frac{1}{4}\left(1 + 2\frac{x^2}{2} + \frac{-2 \cdot -3}{2}\left(\frac{x^2}{2}\right)^2 \dots\right)$ Symbolic binomial coefficients are not sufficient for the M1.
	State correct first term $\frac{1}{4}$	<b>B1</b>	Accept $2^{-2}$ .
	Obtain the next two terms $\frac{1}{4}x^2 + \frac{3}{16}x^4$	<b>A1 A1</b>	A1 for each one correct ISW. Full marks for $\frac{1}{4}(1 + x^2 + \frac{3}{4}x^4)$ ISW.
			<b>SC</b> allow <b>M1 A1 A1</b> for $\frac{1}{4}$ and $1 + x^2 + \frac{3}{4}x^4$ SOI. <b>SC</b> allow <b>M1 A1</b> for $1 + x^2 + \frac{3}{4}x^4$
		<b>4</b>	
(b)	State answer $ x  < \sqrt{2}$	<b>B1</b>	Or $-\sqrt{2} < x < \sqrt{2}$ .
		<b>1</b>	