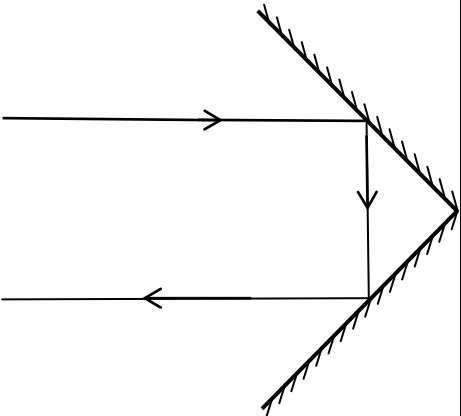


Question number	Answer	Notes	Marks
15 (a)	<p>Reflection at first surface correct; Ray emerges parallel;</p> 	Judge diagram by eye	2
(b)	<p>rearrangement and correct substitution; factor of 2 taken into account; value given to at least 2 significant figures;</p> <p>e.g. Time to reach moon = $\frac{1}{2} \times 2.6 = 1.3$ (s) Distance = time \times speed = $1.3 \times 300\,000$ = 390 000 (km)</p> <p>OR</p> <p>Total distance = $2.6 \times 300\,000 = 780\,000$ So distance to moon = $\frac{1}{2} \times 780\,000$ = 390 000 (km)</p>	<p>working must be shown</p> <p>Reverse argument (starting with 400000 km) allow 2 max</p>	3