

Question number	Answer	Notes	Marks
8 (a) (i)	acceleration = change in velocity / time;	allow rearrangements and standard symbols e.g. $a = v-u / t$ , $a = \Delta v/t$ , $a = \Delta v/\Delta t$	1
(ii)	substitution; rearrangement; evaluation;  e.g. $1.2 = (35 - 26) / t$ $t = 9 / 1.2$ (t =) 7.5 (s)		3
(b)	any four from: MP1. frequency increases;  MP2. due to Doppler effect;  MP3. idea that car behaves as the source of the (reflected) waves;  MP4. (reflected) wavefronts closer together;  MP5. (reflected) wavelength decreased;  MP6. speed (of waves) stays constant;	allow "waves become bunched up"   allow quotation of $v = f \times \lambda$	4

Total for Question 8 = 8 marks