

Soln

Source	Minimum Distance (km)	M <sub>max</sub>
1	$\sqrt{15^2 + 5^2}$ = 15.81	7.0
2	$\sqrt{30^2 + 20^2}$ = 36.058	6.0
3	> 15	6.5

← Controlling Source

$$R = \sqrt{r_0^2 + j_7^2}$$

$$j_7 = 4.0, \quad r_0 = 20 \text{ km.}$$

$$\begin{aligned} R &= \sqrt{(20)^2 + (4)^2} \\ &= 20.4 \text{ km.} \end{aligned}$$



$$\log PHV (\text{cm/s}) = 1.46733$$

$$PHV = 29.33 \text{ cm/s}$$

Ans ..