std deviation :-

$$\sigma_v^2 = \langle v^2 \rangle - \langle v \rangle^2$$

$$\sigma_v^2 = \frac{3 k_B T}{m} - \frac{8 k_B T}{\pi m}$$

$$\Rightarrow \sigma_v = \sqrt{\frac{k_B T}{m} \left(3 - \frac{8}{\pi}\right)}$$