

10 Fig. 10.1 shows the orbit of the Earth and the orbit of a comet around the Sun.

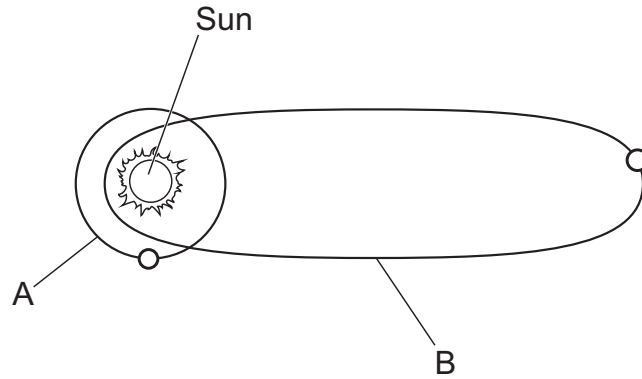


Fig. 10.1

(a) State which orbit, A or B, is the orbit of the comet.
Explain your answer.

orbit of comet is

explanation

.....

[1]

(b) Describe and explain how the motion of the comet changes as it orbits the Sun.

.....

.....

..... [2]

(c) At one position in its orbit, the comet is 6.6×10^{-6} light-years away from the Earth.

(i) State the meaning of light-year.

.....

..... [1]

(ii) Determine the distance in metres between the comet and the Earth.

distance = m [2]

[Total: 6]