

7. A spacecraft is travelling at a speed of $0.20c$ relative to the Earth.

The spacecraft emits a signal for 20.0 s as measured in the frame of reference of the spacecraft.

An observer on Earth measures the duration of the signal as

- A 19.2 s
- B 19.6 s
- C 20.0 s
- D 20.4 s
- E 20.8 s.