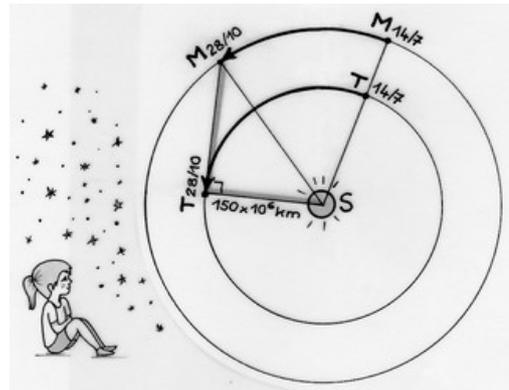


Astronomical figure

One 14th July Mars, Earth and the Sun were in a straight line. Earth was between Mars and the Sun. 106 days later on the 28th October it was found by observation from Earth that the angle Sun-Earth-Mars was a right angle.

We can simplify by assuming:

- that the Earth goes once round the Sun, in a circle, at constant speed, in 365 days ;
- that Mars goes once round the Sun, in a circle, at constant speed, in 687 days ;
- the paths taken by Earth and Mars are in the same plane ;
- the distance from the Earth to the Sun is about 150 million kilometres.



Work out a good estimate of the distance of Mars from the Sun.