

Ageing in Space

You need a calculator

Activity

Dougal knows that it takes the Earth 365.26 days or 1 Earth year to orbit the Sun once. Last week, he turned 10 in Earth years, and he has decided to find out what his age would be if he lived on other planets. His method is to use the number of Earth days it takes each planet to orbit the Sun.

He finds out that it takes Mercury 87.97 Earth days to orbit the Sun. So, in the time that it takes the Earth to orbit the Sun once, Mercury orbits the Sun over 4 times.

Dougal uses the Earth year in a formula:

My age in Earth years \times 365.26 \div the number of Earth days it takes a particular planet to orbit the Sun
= my age in planet years.

$10 \times 365.26 \div 87.97 = 41.5$.
So, if I lived on Mercury, I would be 41.5 Mercury-years old!



1. Find out how old Dougal would be on the planets listed below. Round your answers to 2 decimal places each time.



	Planet	Number of Earth days to orbit the Sun once
a.	Venus	224.7 days
b.	Mars	686.98 days
c.	Jupiter	4 331.98 days
d.	Saturn	10 760.55 days
e.	Uranus	30 707.4 days
f.	Neptune	60 202.15 days
g.	Pluto	90 803.63 days

2. a. Dougal's great-grandmother is 100 years old today! How old would she be in Saturn years?
b. Rosie, Dougal's little sister, is 5 years old. How old would she be in Mercury years?
3. Pulcan lives on Pluto. Pulcan is 10 Pluto-years old. How old would he be in Earth years?

