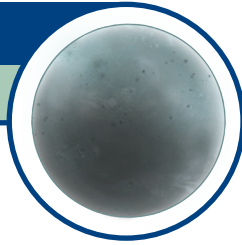


Facts about Mercury



1. Mercury is the closest planet to the Sun.
2. Mercury has no moons.
3. One day on Mercury takes as long as 176 days on Earth!
4. One year on Mercury is much shorter than an Earth year. It only lasts 88 Earth days!
5. Daytime temperatures on Mercury can reach 400°C.
6. Diameter: 4900km
7. Distance from the Sun: 58 million km

Using the information, calculate Mercury's scaled diameter and distance from the Sun in the boxes below. Round your answers to one decimal place.

Diameter

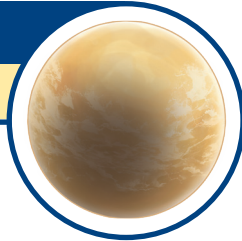
Scale 1cm:2000km

Distance

Scale 1m:200 million km

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Facts about Venus



1. Venus is the second planet from the Sun.
2. Venus has no moons.
3. Venus spins in the opposite direction to Earth.
4. One day on Venus lasts 243 Earth days but a Venus year only lasts 225 Earth days.
5. Daytime temperatures on Venus can reach 460°C.
6. Diameter: 12 000km
7. Distance from the Sun: 110 million km

Using the information, calculate Venus' scaled diameter and distance from the Sun in the boxes below. Round your answers to one decimal place.

Diameter

Scale 1cm:2000km

Distance

Scale 1m:200 million km

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Facts about Earth



1. Earth is the third planet from the Sun.
2. The Earth has one moon.
3. The Earth is the only known planet in the solar system that can support life.
4. About 71% of the Earth's surface is covered by water.
5. Daytime temperatures on Earth average 15°C.
6. Diameter: 12 700km
7. Distance from the Sun: 150 million km

Using the information, calculate Earth's scaled diameter and distance from the Sun in the boxes below. Round your answers to one decimal place.

Diameter

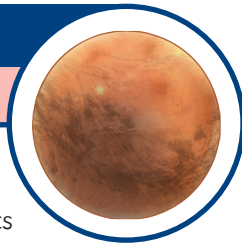
Scale 1cm:2000km

Distance

Scale 1m:200 million km

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Facts about Mars



1. Mars is the fourth planet from the Sun.
2. Mars is known as the 'Red Planet' because of its distinctive red colour.
3. One year on Mars is longer than an Earth year. It lasts 687 Earth days.
4. Like Earth, Mars has ice caps at its north and south poles.
5. The average temperature on Mars is -63°C .
6. Diameter: 6800km
7. Distance from the Sun: 230 million km

Using the information, calculate Mars' scaled diameter and distance from the Sun in the boxes below. Round your answers to one decimal place.

Diameter

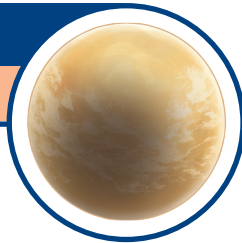
Scale 1cm:2000km

Distance

Scale 1m:200 million km

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Facts about Jupiter



1. Jupiter is the largest planet in our solar system. It is the fifth planet from the Sun.
2. Jupiter has 75 moons. The most well-known of these are called Io, Europa and Callisto.
3. One year on Jupiter lasts 11.9 Earth years.
4. However, one day on Jupiter only lasts 10 hours.
5. The 'Great Red Spot' on Jupiter is actually a storm that is twice the size of Earth and has been raging for over three centuries.
6. Diameter: 140 000km
7. Distance from the Sun: 780 million km

Using the information, calculate Jupiter's scaled diameter and distance from the Sun in the boxes below. Round your answers to one decimal place.

Diameter

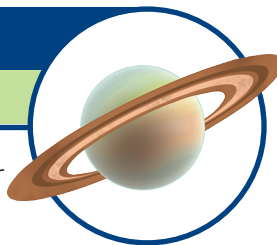
Scale 1cm:2000km

Distance

Scale 1m:200 million km

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Facts about Saturn



1. Saturn is the second largest planet in our solar system. It is the sixth planet from the Sun.
2. Saturn is a gas giant – a giant planet that is mainly made up of gases such as hydrogen and helium. The other gas giant in our solar system is Jupiter.
3. One day on Saturn lasts ten hours.
4. Saturn takes 29 Earth years to orbit the Sun.
5. Saturn is orbited by rings made up of small pieces of ice and rock.
6. Diameter: 120 000km
7. Distance from the Sun: 1400 million km

Using the information, calculate Saturn's scaled diameter and distance from the Sun in the boxes below. Round your answers to one decimal place.

Diameter

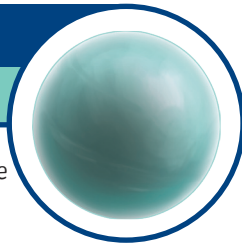
Scale 1cm:2000km

Distance

Scale 1m:200 million km

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Facts about Uranus



1. Uranus is the seventh planet from the Sun and the third largest planet in the solar system.
2. Uranus is an ice giant – a type of gas giant planet with a mantle of frozen or slushy liquid and an icy core.
3. It has the coldest atmosphere of all the planets in the solar system.
4. One year on Uranus lasts 84 Earth years. However, one day on Uranus only lasts 17 hours.
5. It is the only planet in the solar system that spins on its side.
6. Diameter: 51 000km
7. Distance from the Sun: 2900 million km

Using the information, calculate Uranus' scaled diameter and distance from the Sun in the boxes below. Round your answers to one decimal place.

Diameter

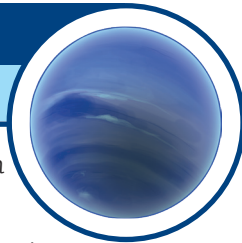
Scale 1cm:2000km

Distance

Scale 1m:200 million km

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Facts about Neptune



1. Neptune is the eighth and most distant planet from the Sun.
2. Neptune is an ice giant. Its atmosphere is mainly made up of hydrogen, helium and methane.
3. Neptune has 13 known moons.
4. A day on Neptune lasts only 16 hours. Neptune takes 165 Earth years to orbit the Sun.
5. Neptune has five main rings that orbit the planet. They are thinner than the rings of Saturn and hard to see from Earth.
6. Diameter: 49 000km
7. Distance from the Sun: 4500 million km

Using the information, calculate Neptune's scaled diameter and distance from the Sun in the boxes below. Round your answers to one decimal place.

Diameter

Scale 1cm:2000km

Distance

Scale 1m:200 million km

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Modelling The Solar System Answers

Mercury	Diameter:	$4900 \div 2000 = 2.5\text{cm}$
	Distance:	$58\,000\,000 \div 150\,000\,000 = 0.4\text{m}$
Venus	Diameter:	$12000 \div 2000 = 6.0\text{cm}$
	Distance:	$110\,000\,000 \div 200\,000\,000 = 0.6\text{m}$
Earth	Diameter:	$12\,700 \div 2000 = 6.4\text{cm}$
	Distance:	$150\,000\,000 \div 200\,000\,000 = 0.8\text{m}$
Mars	Diameter:	$6800 \div 2000 = 3.4\text{cm}$
	Distance:	$230\,000\,000 \div 200\,000\,000 = 1.2\text{m}$
Jupiter	Diameter:	$140\,000 \div 2000 = 70.0\text{cm}$
	Distance:	$780\,000\,000 \div 200\,000\,000 = 3.9\text{m}$
Saturn	Diameter:	$120\,000 \div 2000 = 60.0\text{cm}$
	Distance:	$1400\,000\,000 \div 200\,000\,000 = 7.0\text{m}$
Uranus	Diameter:	$51\,000 \div 2000 = 25.5\text{cm}$
	Distance:	$2900\,000\,000 \div 200\,000\,000 = 14.5\text{m}$
Neptune	Diameter:	$49\,000 \div 2000 = 24.5\text{cm}$
	Distance:	$4500\,000\,000 \div 200\,000\,000 = 22.5\text{m}$

