



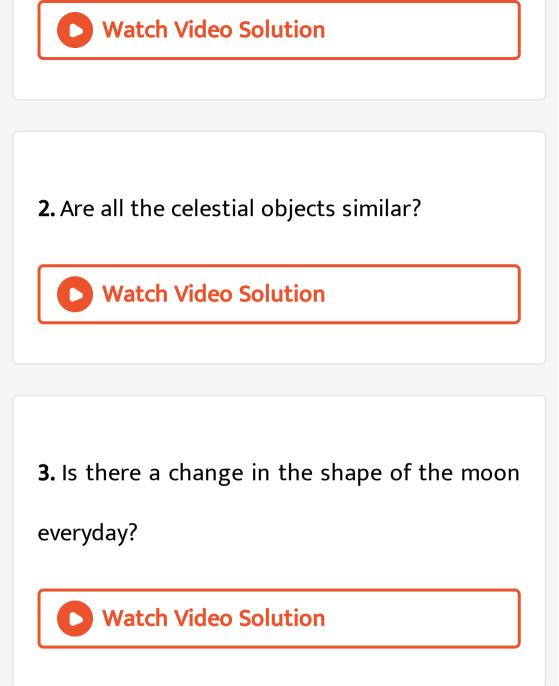
PHYSICS

BOOKS - NAND LAL PUBLICATION

STARS AND THE SOLAR SYSTEM

Questions Asked In Between The Chapter

1. Do all of them appear to twinkle? Do you find any star like object which does not twinkle?



4. Are there days when the shape of the moon

appears to be perfectly round?

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5. Are there days when the moon cannot be

seen at all even if the sky is clear?

6. Is there a change in the shape of the moon

everyday?

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7. Can you now guess the relative positions of the Sun, moon and the day of the full moon and on the day of the new moon? Sketch these positions in your notebook.

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8. In which part of the sky would you look for

the full moon?



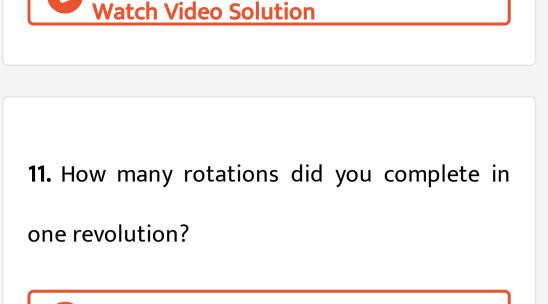
9. I have heard that we never see the backside

of the moon from the Earth. Is it true?

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10. Can your friend see your back?





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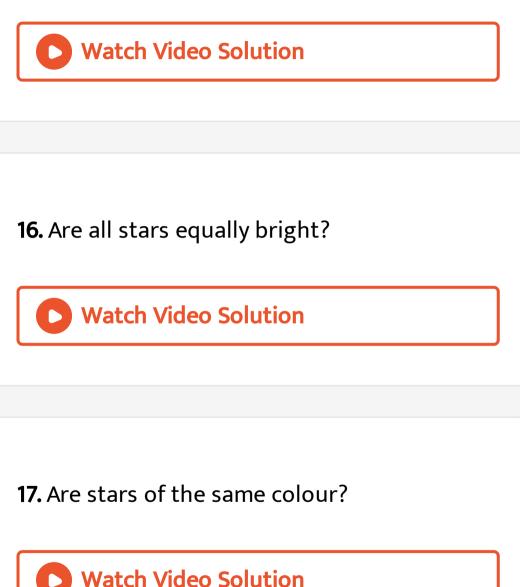
12. Can any life exist on the moon?

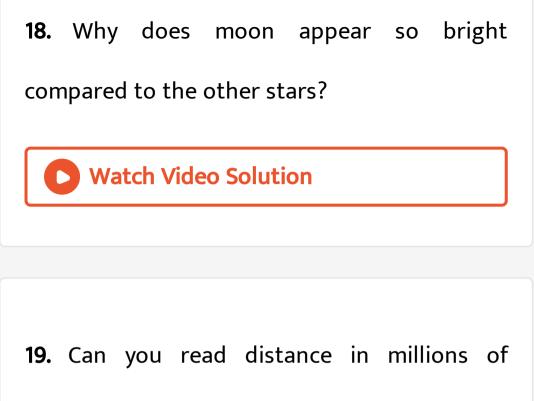
13. Suppose you and your friend are on the moon. Will you be able to hear any sound produced by your friend ?



14. Suppose you and your friend are on the moon. Will you be able to hear any sound produced by your friend ?

15. What objects do you see in the night sky?





kilometers?

20. If light from stars takes years to reach us, I wonder if we are looking into the past when we look at stars.



21. I want to know why we do not see the stars during the day? Why are they visible only at night?



22. What do you find? Do you find any change

in the positions of the stars in the sky?



23. Why do the heavenly bodies seem to move

from east to west?

24. Stand in the centre of a big room and start

rotating. In which direction will the objects in

the room appear to move?



25. Do you see them moving in the direction

opposite to your motion?

26. My grandfather told me that there is one star in the sky which does not move at all. How is it possible?



27. Is there any star which does not appear to

move? Where is this star located?



28. Can you see some stars forming groups

with shapes like those in Fig. 17.11

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29. Do you find any change in its shape? Do

you find any change in its position?

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There are nne planets in the solar system.

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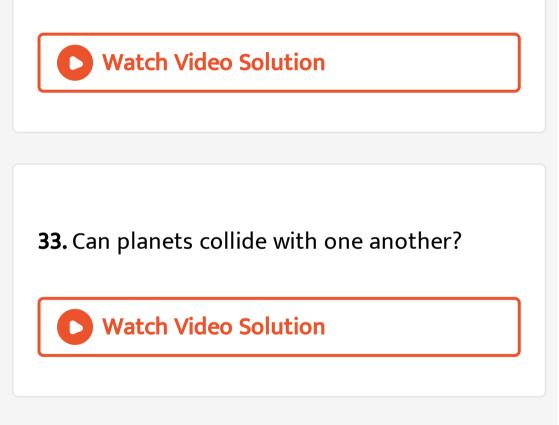
31. Can you distinguish between planets and

stars?



32. I wonder, why the planets do not collide

while revolving around the Sun?



34. Does the Sun would rise in the west and

set in the east on Venus?



35. If I am 13 years old, how many times have I

gone round the Sun?

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36. Boojho has a naughty idea! "If we imagine Saturn in a large pool of water then it will float" (Fig. 17.23)

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37. When was Halley's comet last seen?



Exercises Choose The Correct Answer

1. Which of the following is NOT a member of

the solar system?

A. An asteroid

B. A satellite

C. A constellation

D. A comet

Answer: C



2. Which of the following id NOT planet of the

sun/

A. Sirius

B. Mercury

C. Saturn

D. Earth

Answer: A



3. Phases of the moon occur because

A. We can see only that part of the moon

which reflects light towards us.

B. Our distance from the moon keeps

changing.

C. The shadow of the Earth covers only a

part of the moon's surface.

D. The thickness of the moon's atmosphere

is not constant.

Answer: A

1. The planet which is farthest from the sun is :

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2. Fill in the blank

the planet which appears reddish in colour

is.....

3. Fill in the blank

A group of stars that appear to form a pattern

in the sky is known as a.....



4. Fill in the blank

A celestial body that revolves around a planet

in the known as

5. Fill in the blank

Shooting stars are actually not

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6. Fill in the blank

Asteroids are found between the orbits of

..... And

Pole star is a member of our solar system.

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2. True or False

Mercury is the smllest planet in the solar system.

Mercury is the smllest planet in the solar system.

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4. True or False

INSAT is an artifical satellite.

There are nne planets in the solar system.

| 0 | Watch Video Solution | |
|---|----------------------|--|
| | | |

6. True or False

Constellation Orion can be seen ony with

atelescape.



7. Match items in column A with one or more

items of column B:

Column A

- (i) Inner Planets
- (ii) Outer Planets
- (iii) Constellation
- (iv) Satellite of the Earth

Column B

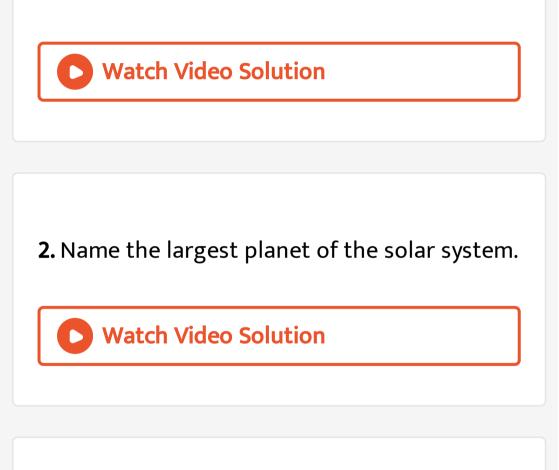
- (a) Saturn
- (b) Pole star
- (c) Great Bear
- (d) Moon
- (e) Earth
- (f) Orion
- (g) Mars

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Exercises

1. In which part of the sky can you find Venus if

it is visible as an evening star?



3. What is a consellation? Name any two constellations.



4. Draw sketches to show the relative positions of prominent stars in

Ursa Major

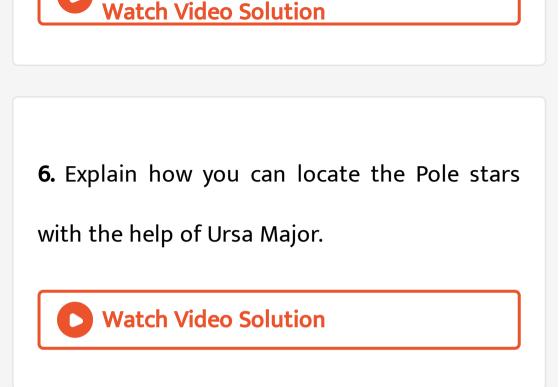
Orion

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5. Name two objects other than which are

members of the solar system.





7. Do all the stars in the sky move? Explain.

8. Why is the distance between stars expressed in light years? What do you understand by the statement that a star is eight light years away from the earth?

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9. The radius if Jupiter is 11 times the radius of the Earth. Calulate the ratio of the volumes of jupiter and the Earth. How many Earths can Jupiter accommodate?



10. Booja made the following sketch of the solar system. Is the sketch correct? If not, correct it.



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Additional Questions Multiple Choice Questions

1. Explain how you can locate the Pole stars with the help of Ursa Major.

A. Big Dipper

B. The Great Bear

C. Saptarishi

D. All of these

Answer: D

2. Which planet has rings around it?

A. Venus

B. Earth

C. Saturn

D. Mars

Answer: C



3. Which of the following is not a planet?

A. Jupiter

B. Pluto

C. Uranus

D. Earth

Answer: B

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4. True or False

Mercury is the smllest planet in the solar

system.

A. Venus

B. Jupter

C. Mars

D. Mercury

Answer: D

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5. Our galaxy is known as ,

A. Milky way

B. Sun way and

C. Moon galaxy

D. Earth galaxy

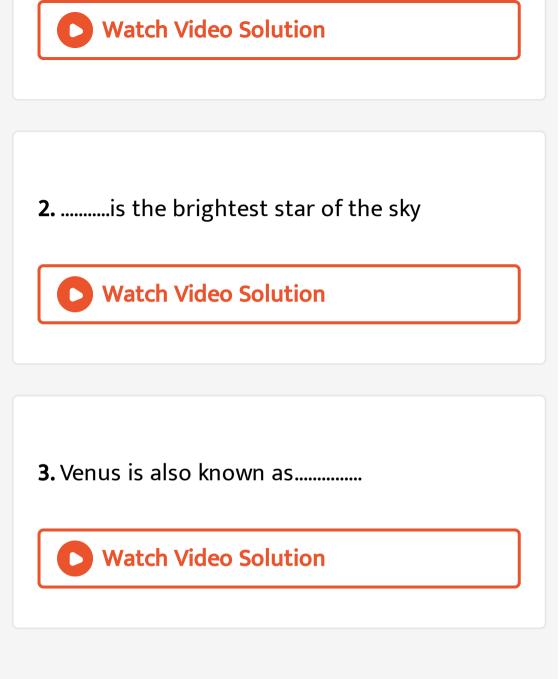
Answer: A

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Additional Questions Fill In The Blanks

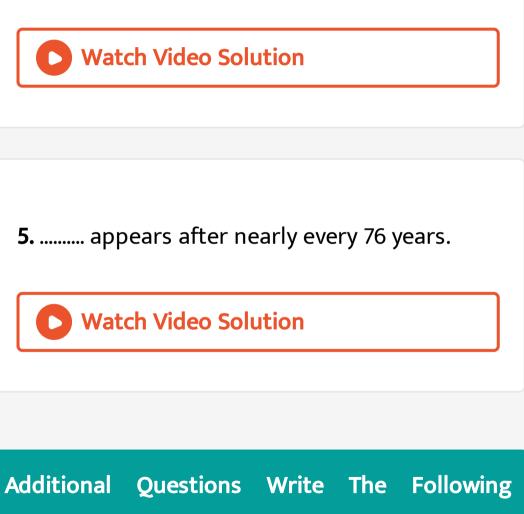
1. The pole star is not visible from

the.....hemisphere



4. The density of...... planet is less than that of

water.



Statements As True Or False

1. Which planet rotates on its axis from East to

West?

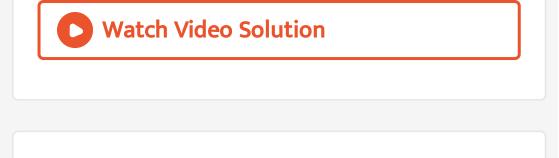


2. The earth can be said to be a satellite of the

Sun. true/false

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3. The objects which twinkle in the sky are planets. true/ false



4. Can an astronaut listen to the sound produced by another astronaut on the surface of moon?



5. The surface of the moon is dusty and barren.true/false



Additional Questions Answer The Following Questions

1. Name the constellation which looks like a

distorted letter 'W' or 'M'.

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2. Name the nearest and the farthest planet

from the sun.

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3. When did Neil Armstrong land on the surface of moon?

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4. Name a planet which does not have its own

satellite .

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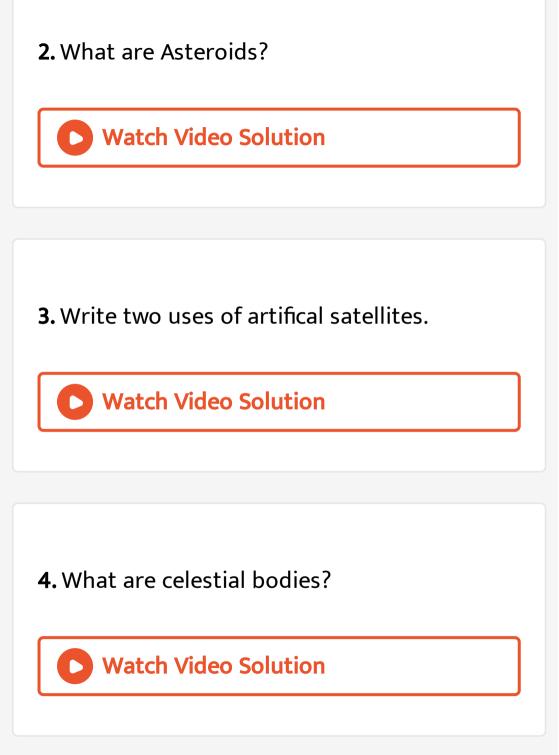
5. What is the speed of light?

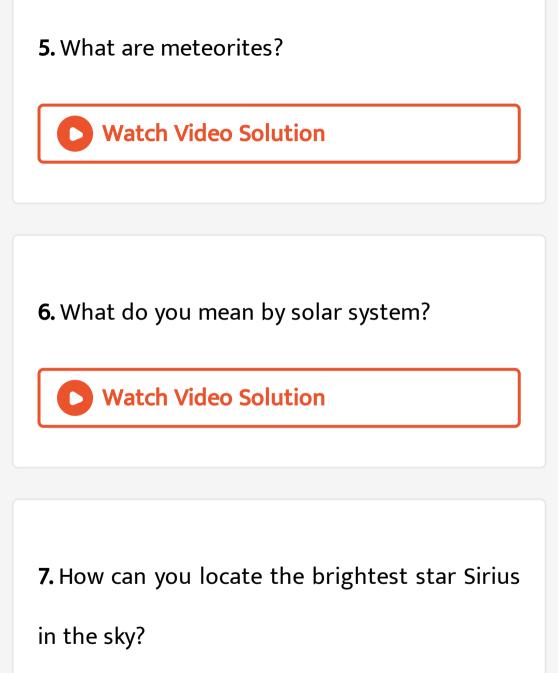


Additional Questions Very Short Answer Type Questions

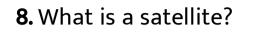
1. Define orbit.







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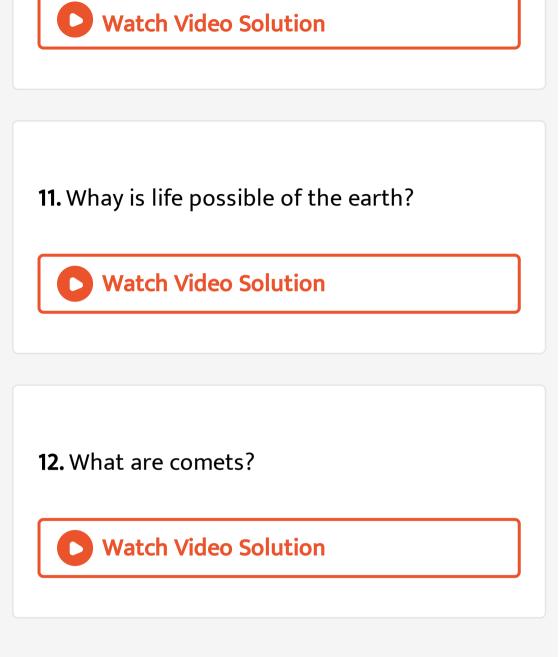
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9. Which planet is nearest to the Sun? Why is

it difficult to observe it?



10. What are outer planets?



13. Solar system is the "Sun and its family of objects which revolve around it". The Sun is at the center of the solar system and all other objects are revolving around it in a fixed paths called orbits.

What values do members of the solar system teach us?



Additional Questions Long Answer Type Questions 1. What are phases of moon?



Additional Questions Higher Order Thinking Skills Hots

1. Why do planets not collide with each other

while moving around the Sun?



1. Solar system is the "Sun and its family of objects which revolve around it". The Sun is at the center of the solar system and all other objects are revolving around it in a fixed paths called orbits.

What are the various objects which revolve around the Sun?



1. What is the difference between a meteor

and a meteorite ?

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2. Define a light year.



3. How is a star different from shooting star ?

