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90192



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA



National Certificate of Educational Achievement
TAUMATA MĀTAURANGA Ā-MOTU KUA TAEĀ

Level 1 Science, 2005

90192 Describe aspects of astronomy

Credits: Two

9.30 am Friday 18 November 2005

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should answer ALL the questions in this booklet.

If you need more space for any answer, use the page(s) provided at the back of this booklet and clearly number the question.

Check that this booklet has pages 2–9 in the correct order and that none of these pages is blank.

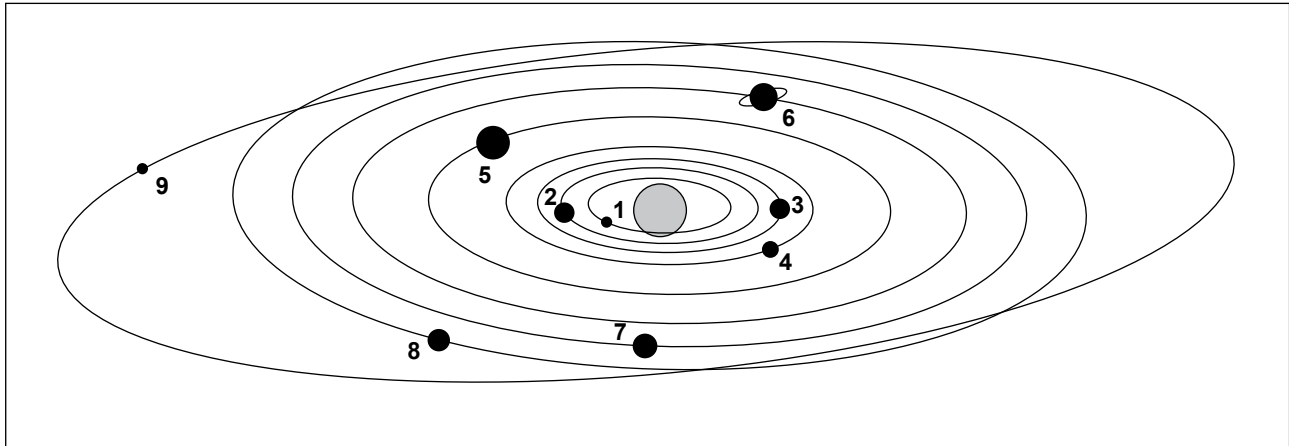
YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

For Assessor's use only			Achievement Criteria		
Achievement		Achievement with Merit		Achievement with Excellence	
Describe aspects of astronomy.	<input type="checkbox"/>	Explain aspects of astronomy.	<input type="checkbox"/>	Discuss aspects of astronomy.	<input type="checkbox"/>
Overall Level of Performance			<input type="checkbox"/>		

You are advised to spend 20 minutes answering the questions in this booklet.

QUESTION ONE: ORBITS

Our solar system has at least nine planets in orbit around the sun. The diagram below shows these orbits.



(a) Name the first four planets of our solar system

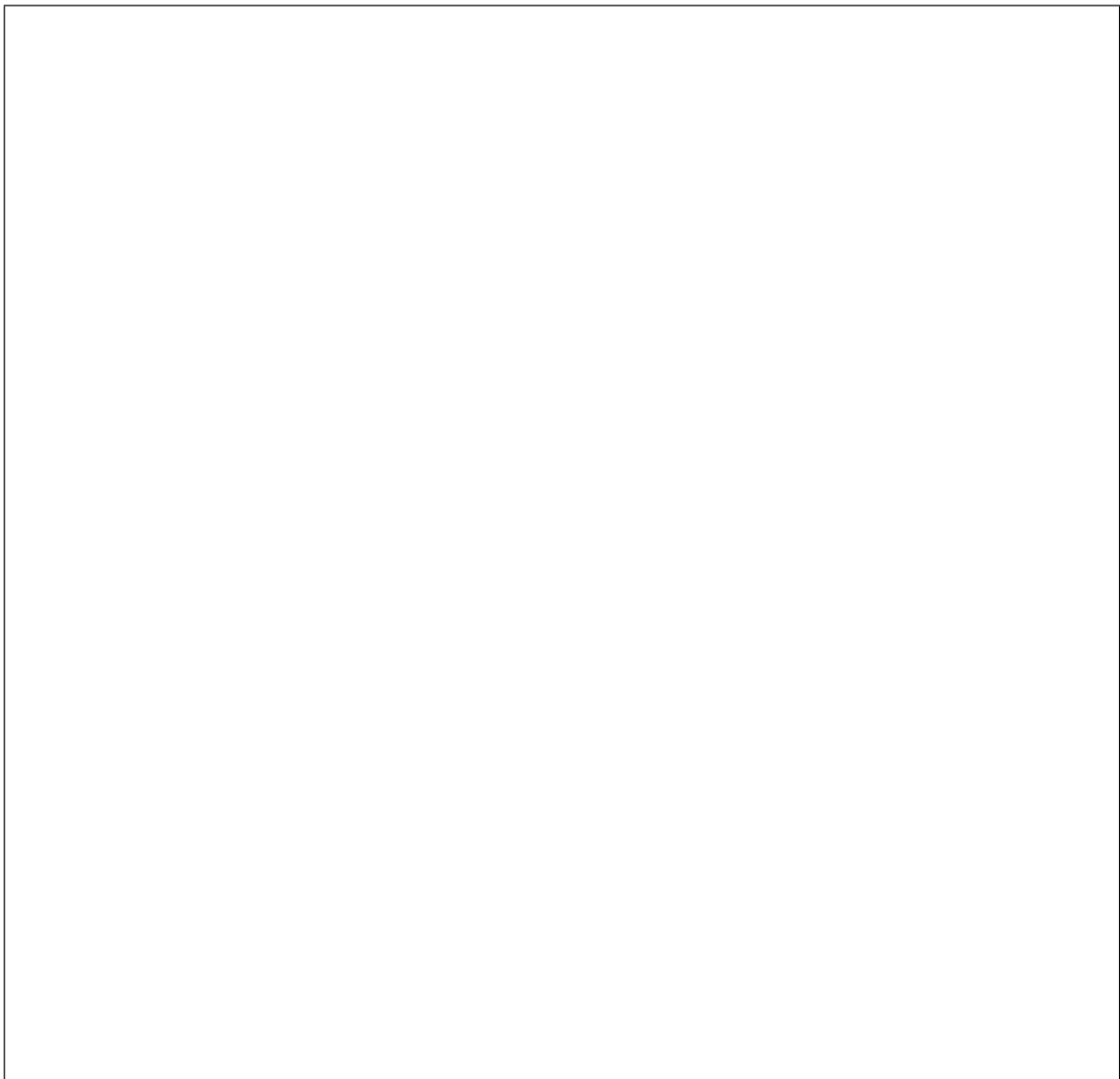
- | | |
|----------|----------|
| 1. _____ | 3. _____ |
| 2. _____ | 4. _____ |

(b) Planetary orbits are not circular. What is the scientific name given to the shape of planetary orbits?

(c) Explain what causes the Earth's seasons.

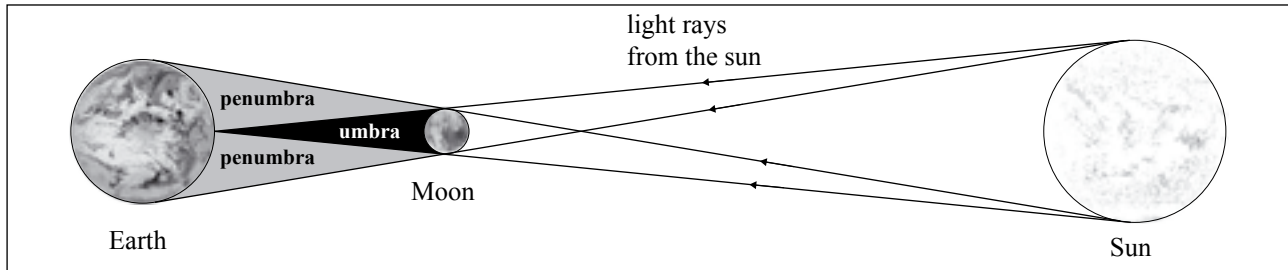
- (d) The 'dark side of the Moon' is the far side of the Moon that we never see from Earth. Discuss why we never get to see the far side of the Moon. Use a labelled diagram to assist your answer.

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QUESTION TWO: ECLIPSESAssessor's
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The picture below shows an eclipse.



(a) What type of eclipse is shown in the picture?

(b) Explain what happens to produce the type of eclipse shown above.

- (c) Discuss how a **partial eclipse** of the type shown on the previous page can occur. You should use a labelled diagram to assist your answer.

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The diagram below shows a cross section of a common type of astronomical telescope.



Radio

- [illegible]

QUESTION FOUR: SPACE PROBESAssessor's
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- (a) Explain ONE reason why probes are sent into space.

- (b) Discuss TWO potential difficulties that need to be overcome in successfully sending a space probe to the surface of Mars.

- (c) Astronauts travelling in space encounter many problems. Describe two major problems that affect **people** travelling in space.

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Problem one:

Problem two:

[illegible]

