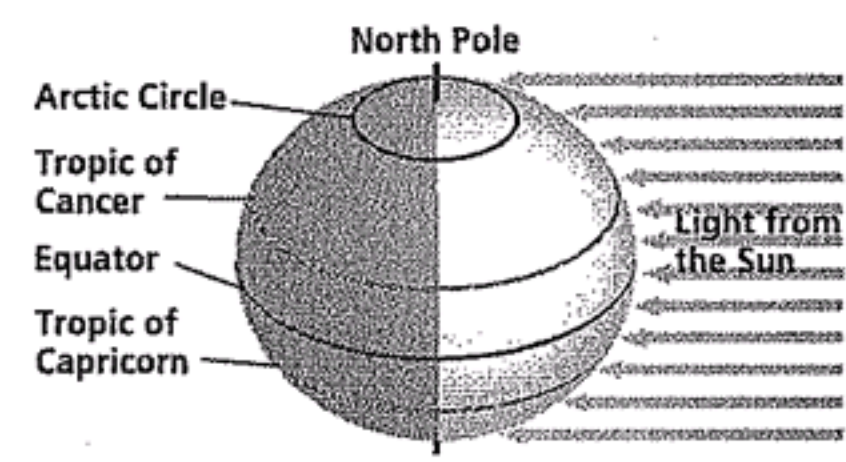
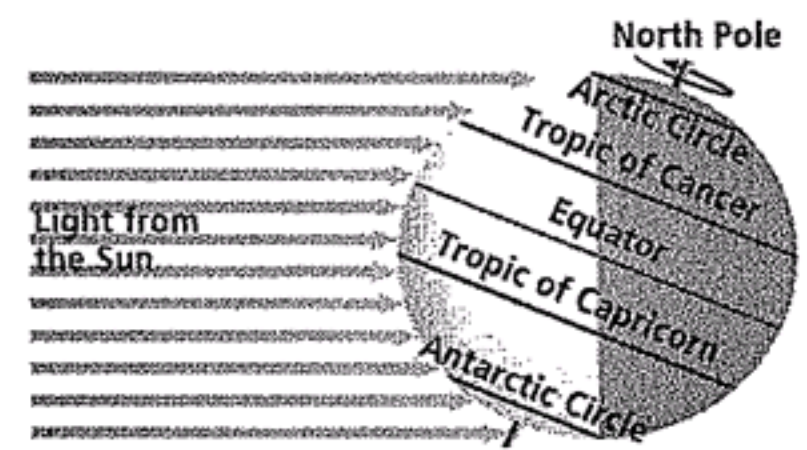
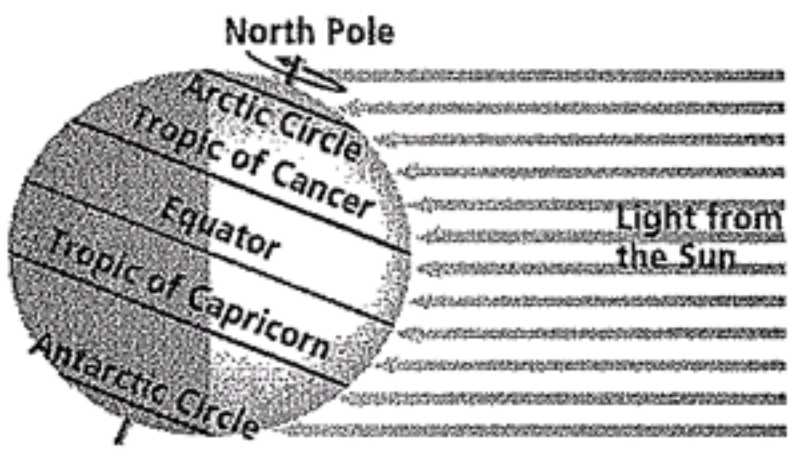
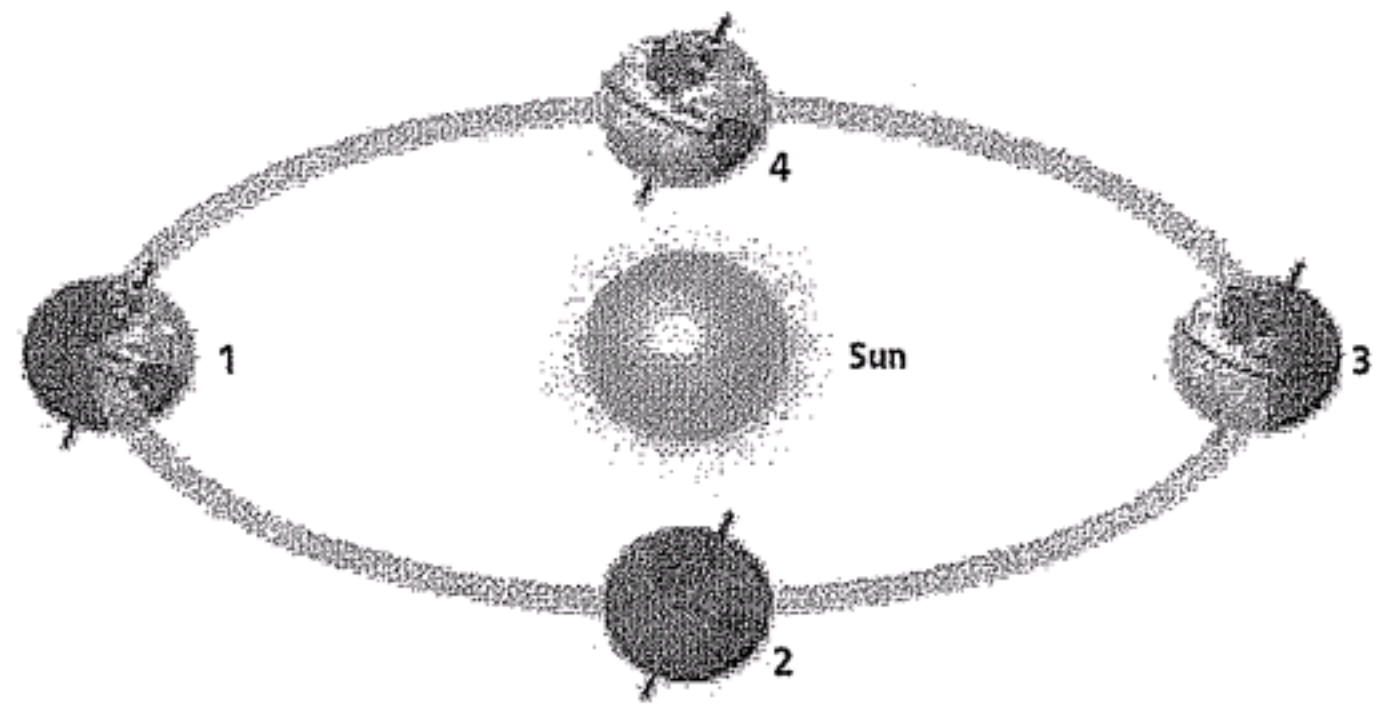
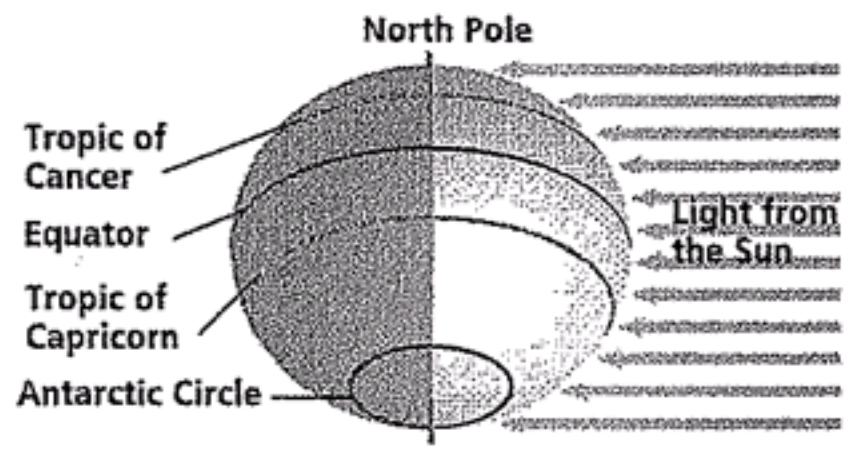


# The Solstices and Equinoxes

Get this Out!



# The Solstices and Equinoxes

Section 27.3



1. Which numbered position of Earth in its orbit around the Sun corresponds to the summer solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

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2. Describe the sunlight conditions within the arctic and antarctic circles during the summer solstice.

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3. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

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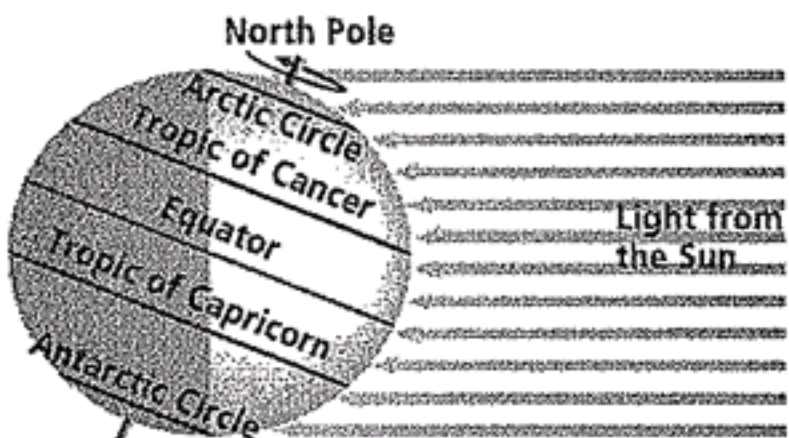
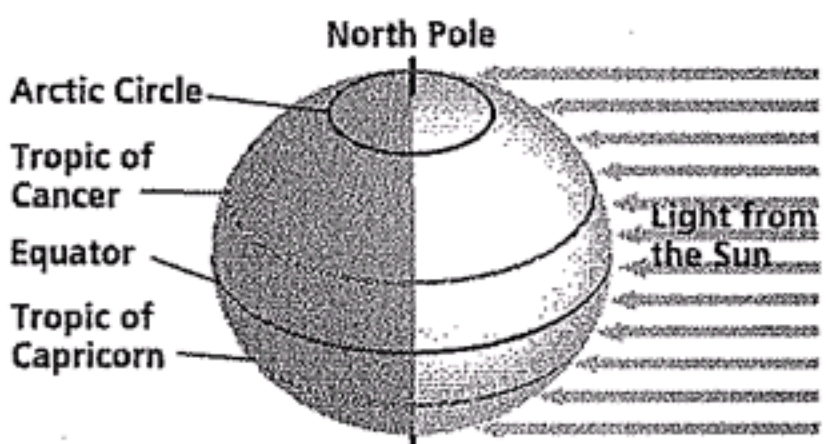
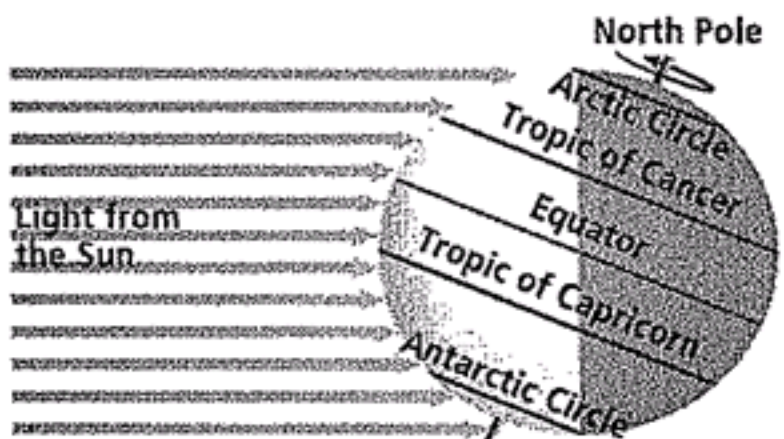
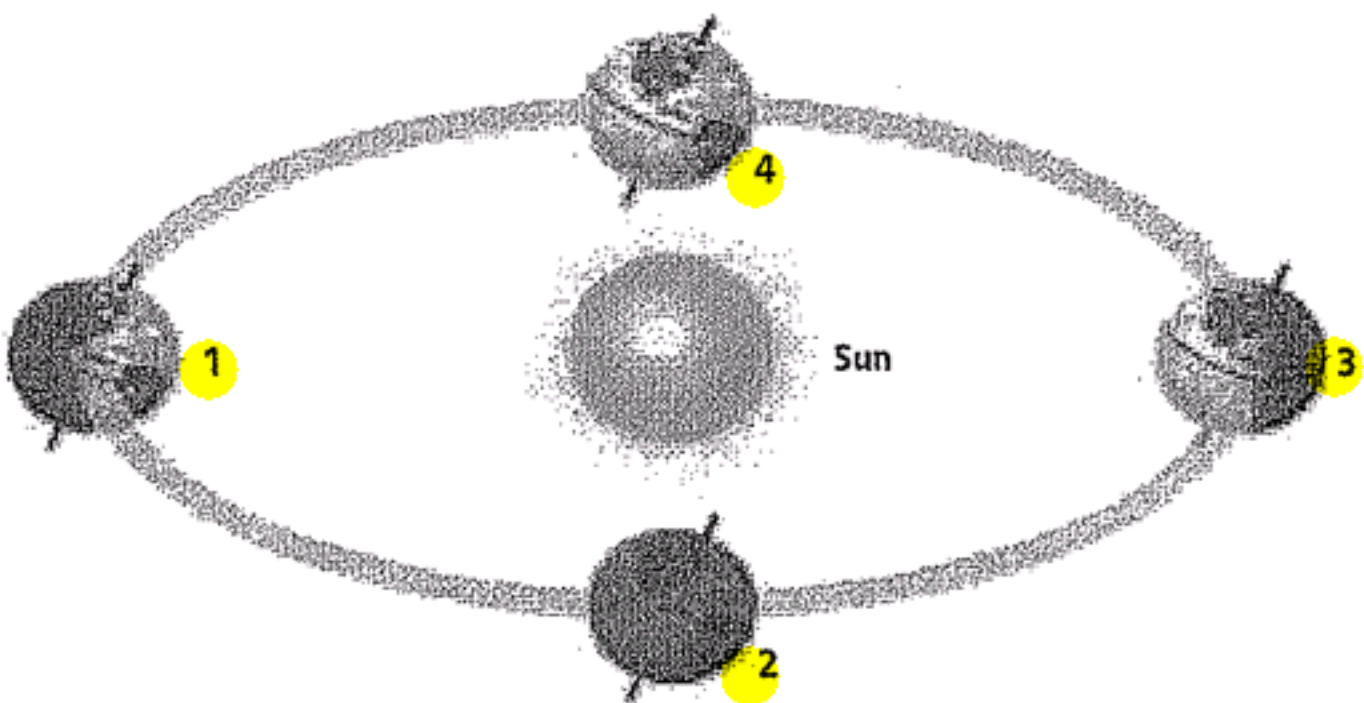
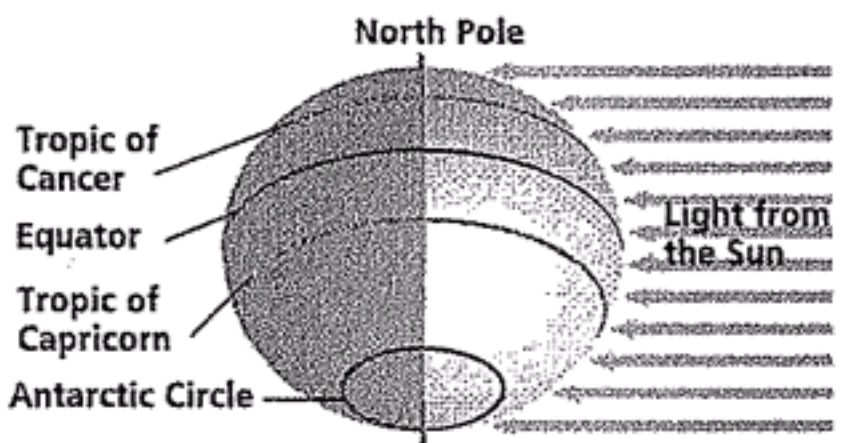
4. Describe the sunlight conditions within the arctic and antarctic circles during the winter solstice.

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5. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the southern hemisphere? At this time, where on Earth are the Sun's rays vertical?

# The Solstices and Equinoxes



# The Solstices and Equinoxes



1. Which numbered position of Earth in its orbit around the Sun corresponds to the summer solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

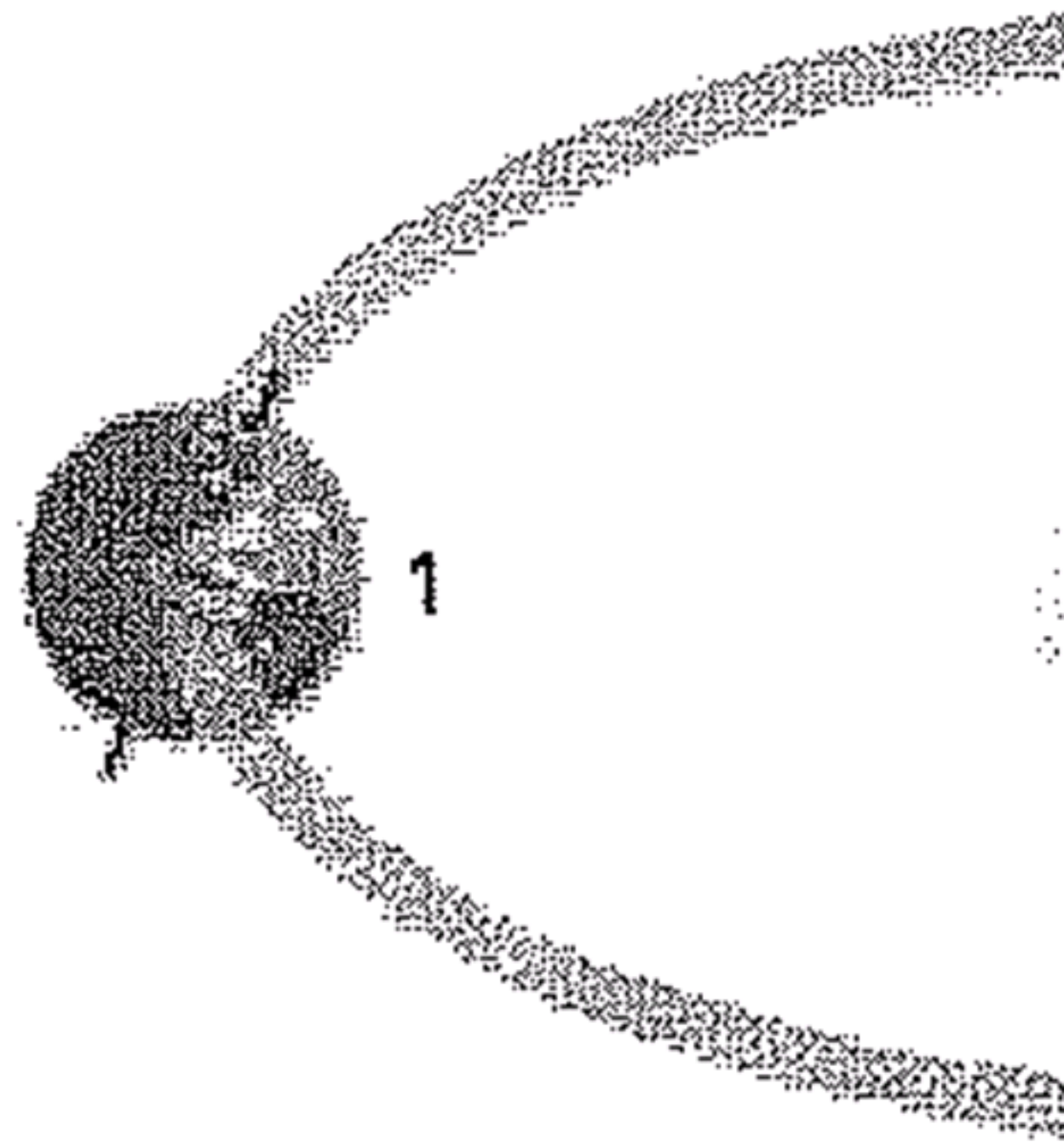
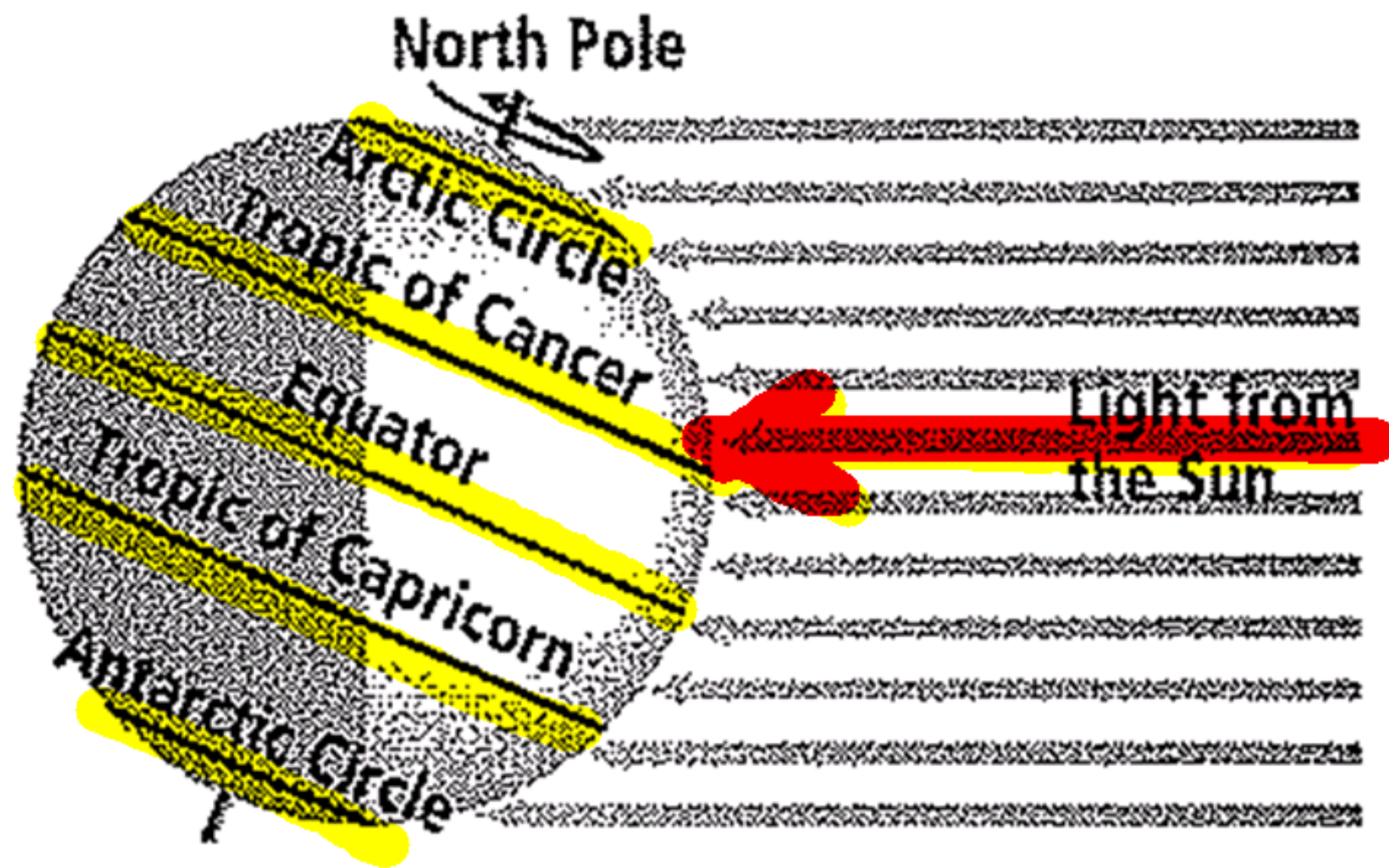
Position 1

2. Describe the sunlight conditions within the arctic and antarctic circles during the summer solstice.

3. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

4. Describe the sunlight conditions within the arctic and antarctic circles during the winter solstice.

5. Which numbered position of Earth in its orbit around the Sun corresponds to the



Arctic Circle  
Tropic of

# The Solstices and Equinoxes

Section 27.3



1. Which numbered position of Earth in its orbit around the Sun corresponds to the summer solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

Position 1 ☉'s rays hit Tropic of Cancer

2. Describe the sunlight conditions within the arctic and antarctic circles during the summer solstice.

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3. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

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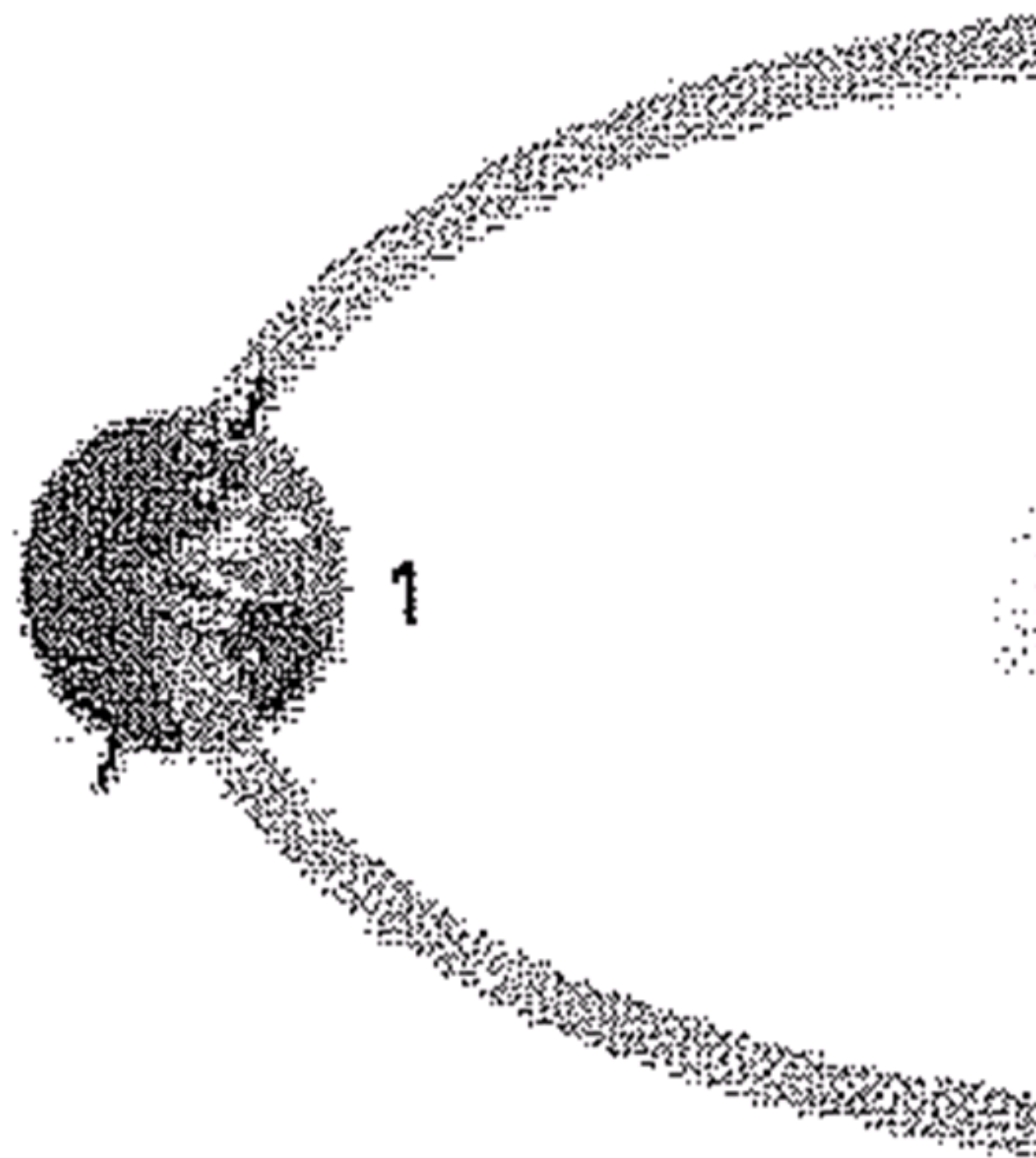
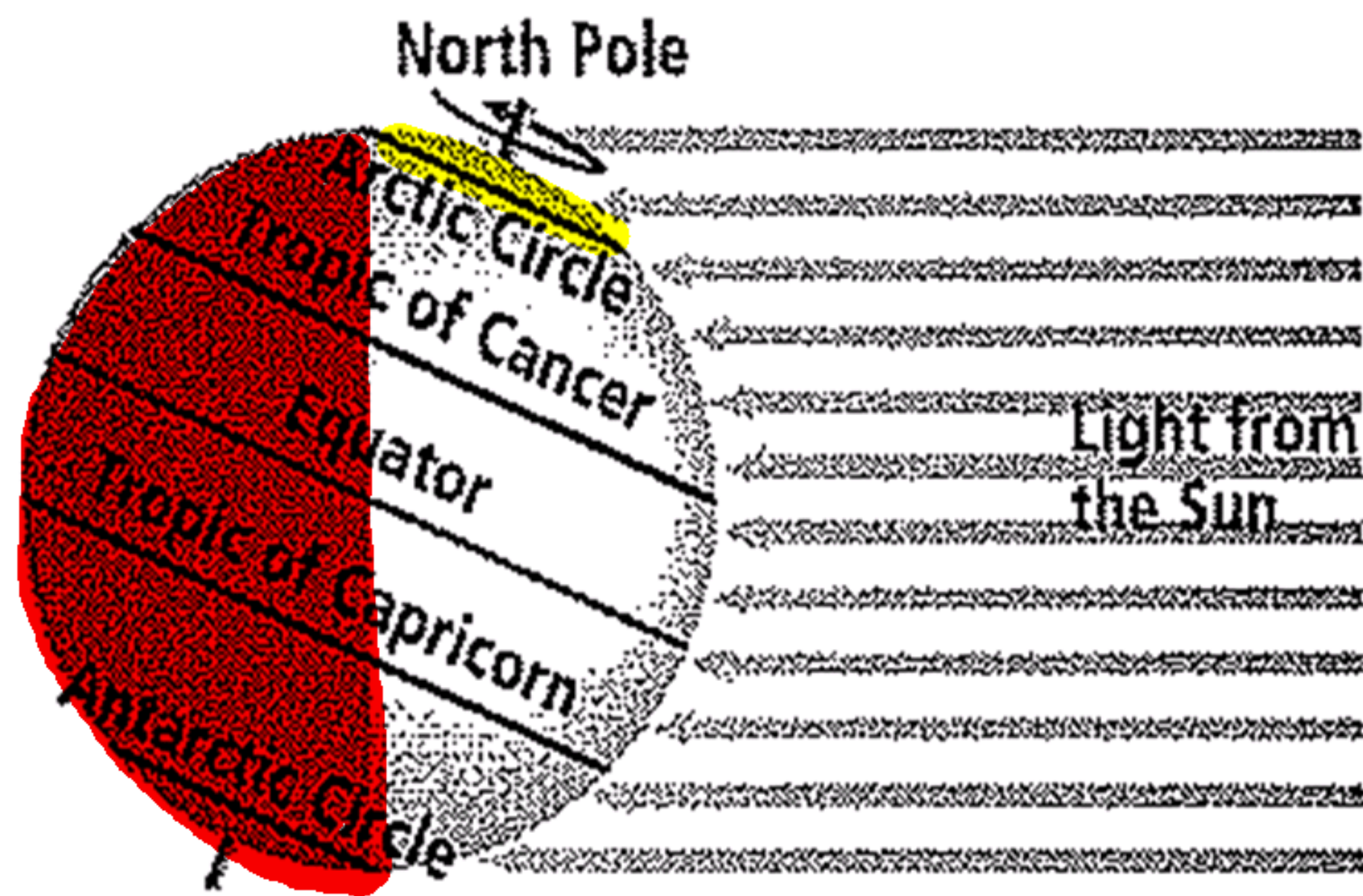
---

4. Describe the sunlight conditions within the arctic and antarctic circles during the winter solstice.

---

---

5. Which numbered position of Earth in its orbit around the Sun corresponds to the



# The Solstices and Equinoxes

Section 27.3



1. Which numbered position of Earth in its orbit around the Sun corresponds to the summer solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

Position 1 ☉'s rays hit Tropic of Cancer

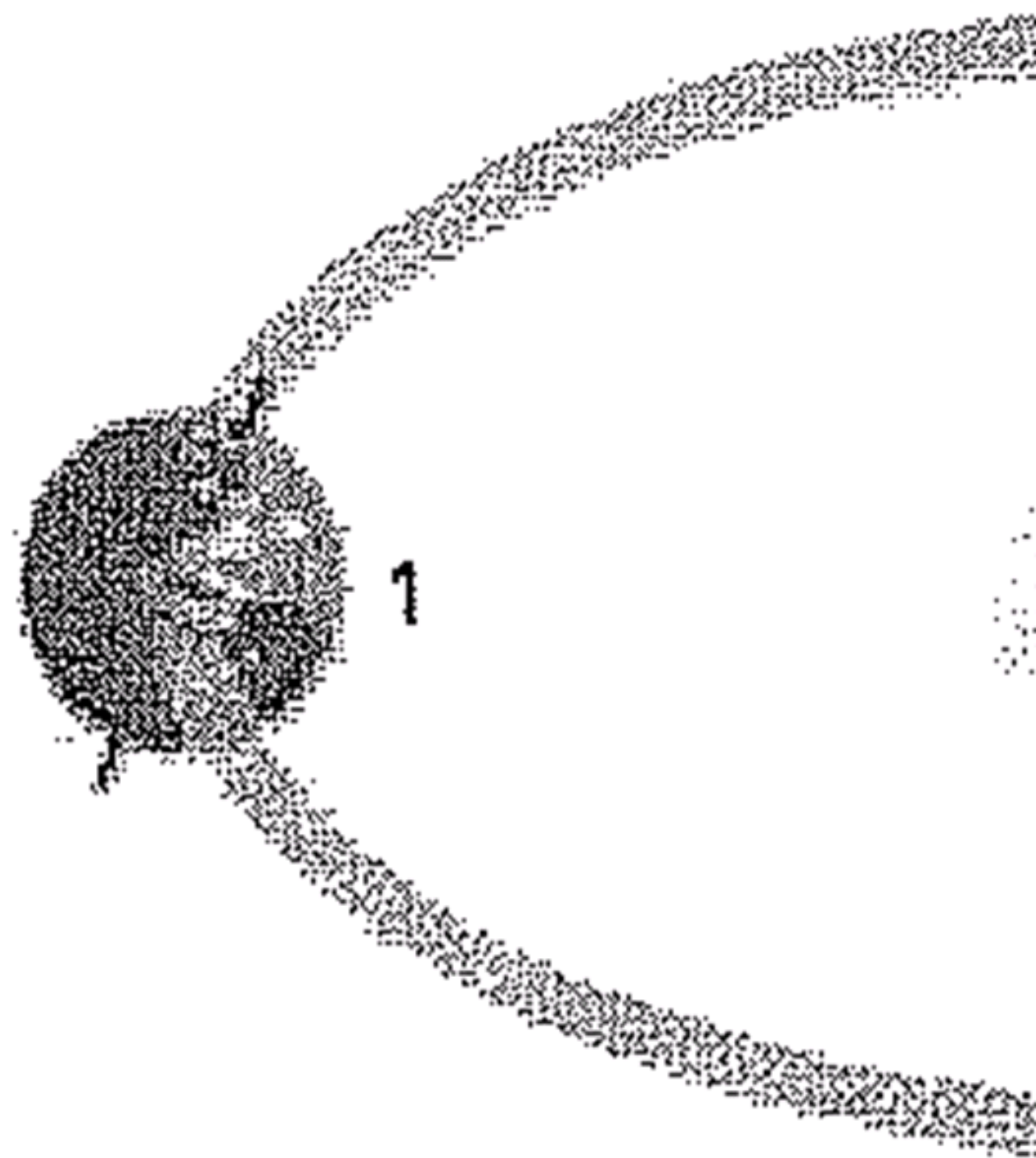
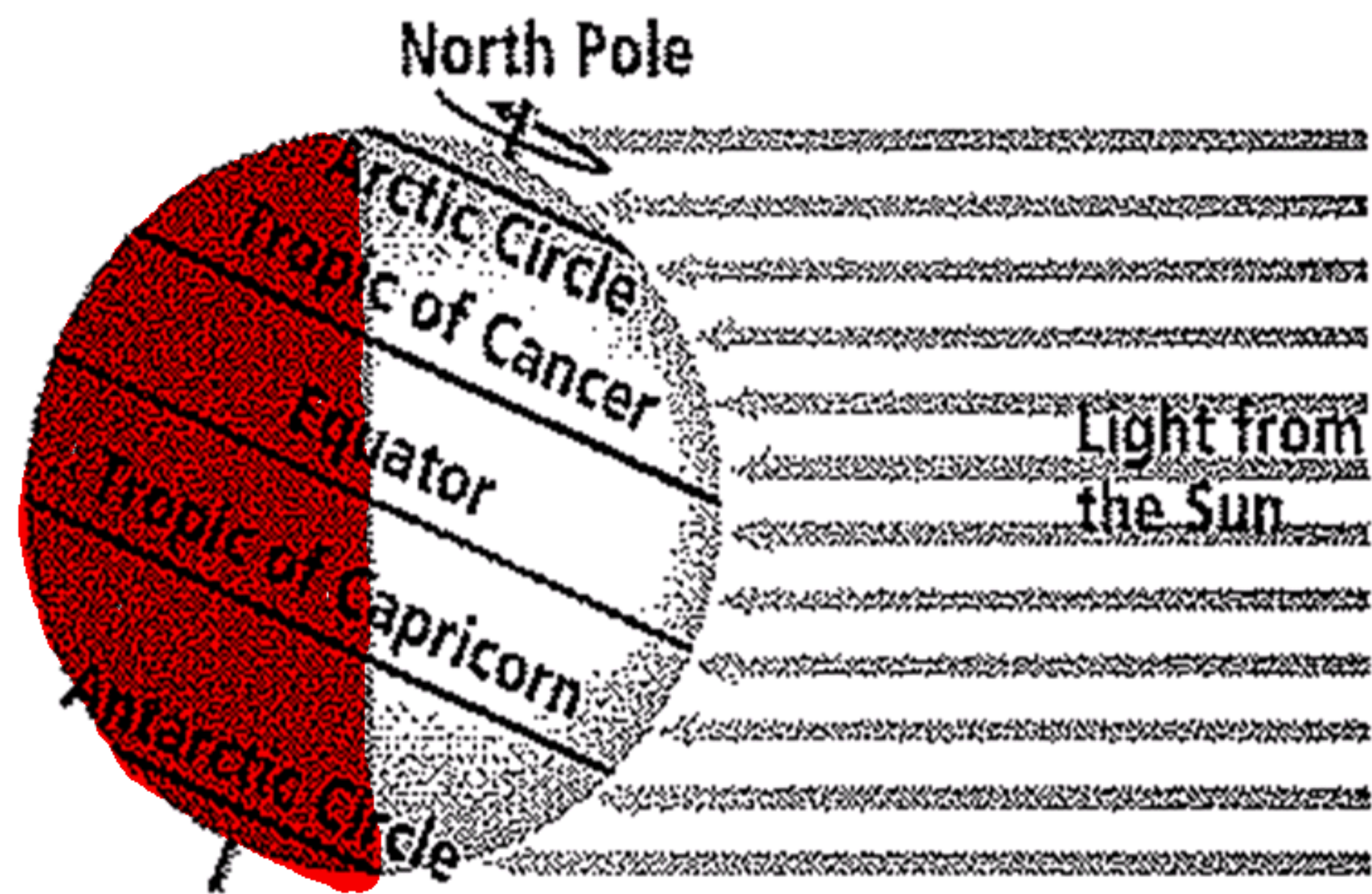
2. Describe the sunlight conditions within the arctic and antarctic circles during the summer solstice.

☉ does not set within the Arctic circle  
or.....

3. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

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5. Which numbered position of Earth in its orbit around the Sun corresponds to the



# The Solstices and Equinoxes

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Position 1 's rays hit Tropic of Cancer

2. Describe the sunlight conditions within the arctic and antarctic circles during the summer solstice.

 does not set within the Arctic circle  
or it does not rise w/in the Antarctic circle

3. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

\_\_\_\_\_

\_\_\_\_\_

4. Describe the sunlight conditions within the arctic and antarctic circles during the winter solstice.

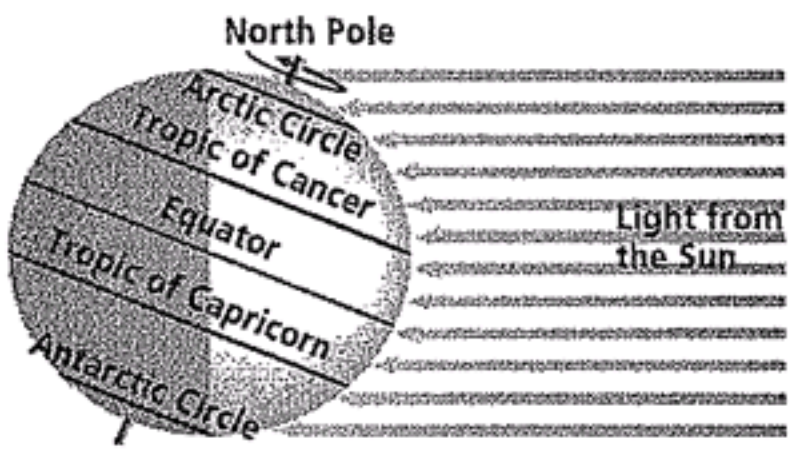
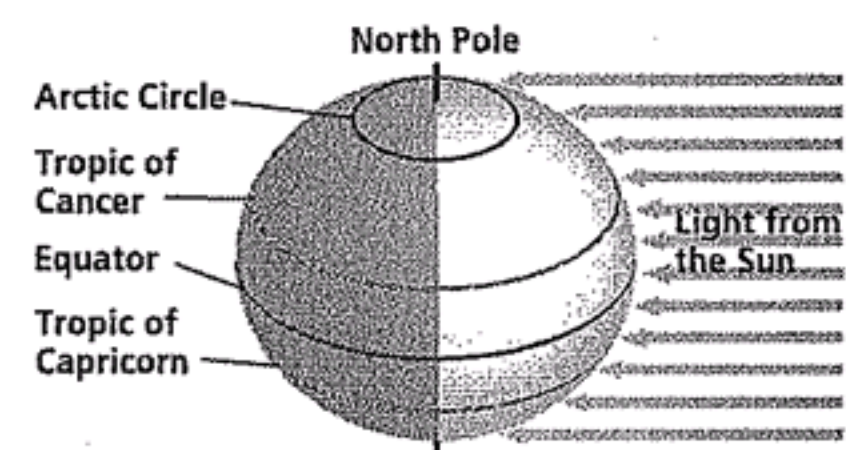
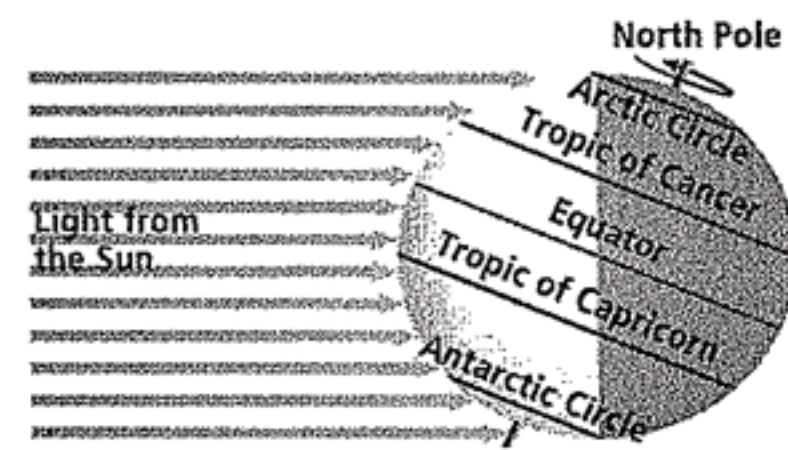
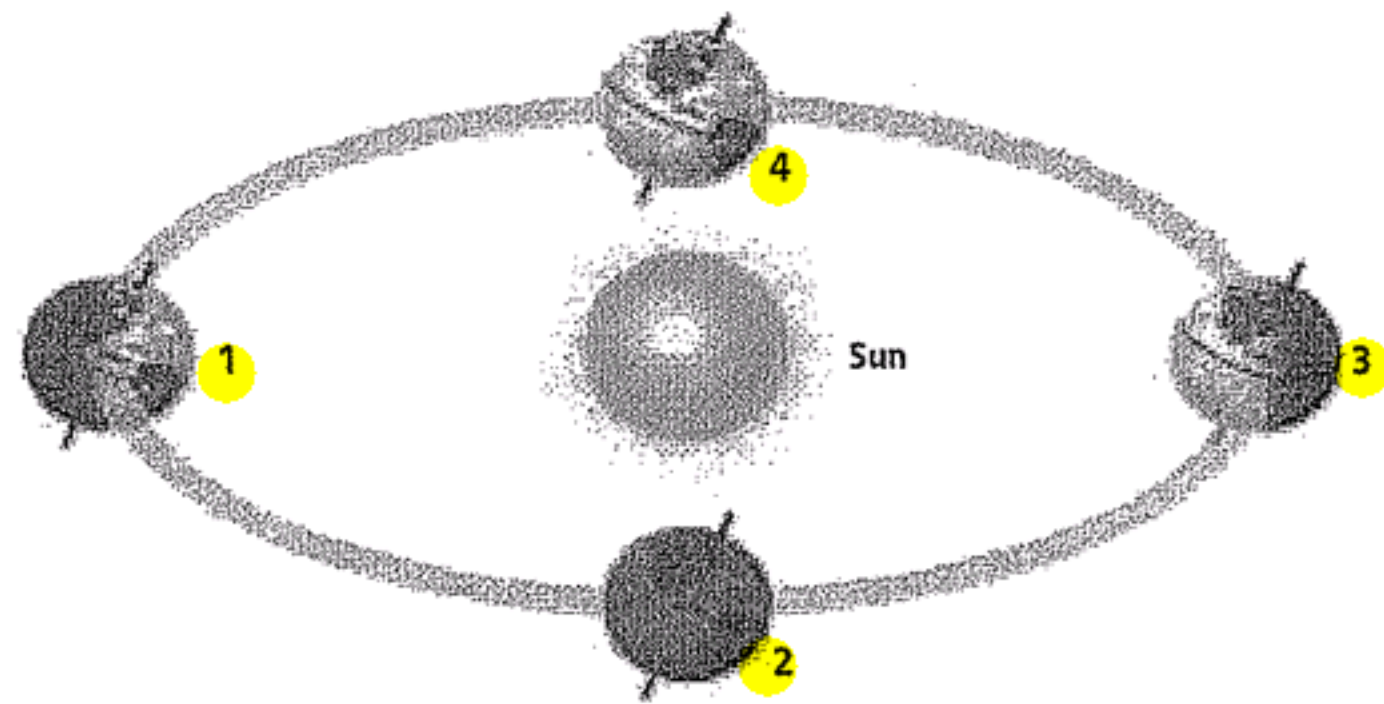
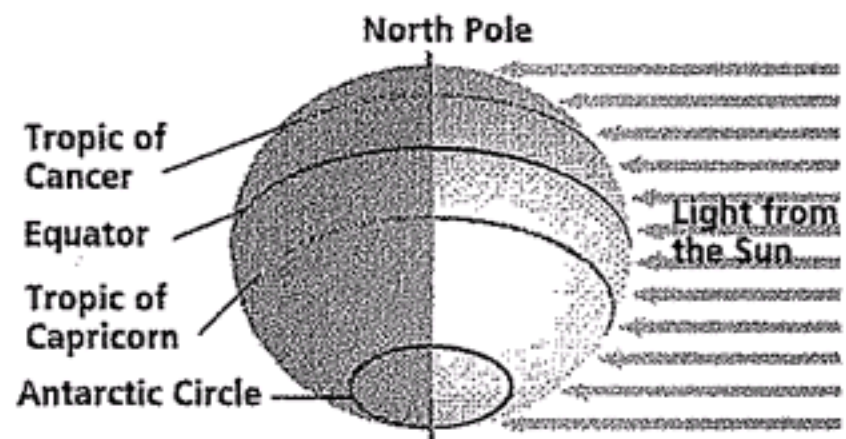
\_\_\_\_\_

\_\_\_\_\_

5. Which numbered position of Earth in its orbit around the Sun corresponds to the \_\_\_\_\_  
\_\_\_\_\_ At this time, where on Earth are the Sun's rays vertical?

# The Solstices and Equinoxes

Use with Chapter 27  
Section 27.3



# The Solstices and Equinoxes

Section 27.3

1. Which numbered position of Earth in its orbit around the Sun corresponds to the summer solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

Position 1 's rays hit Tropic of Cancer

2. Describe the sunlight conditions within the arctic and antarctic circles during the summer solstice.

 does not set within the Arctic circle  
or it does not rise w/in the Antarctic circle

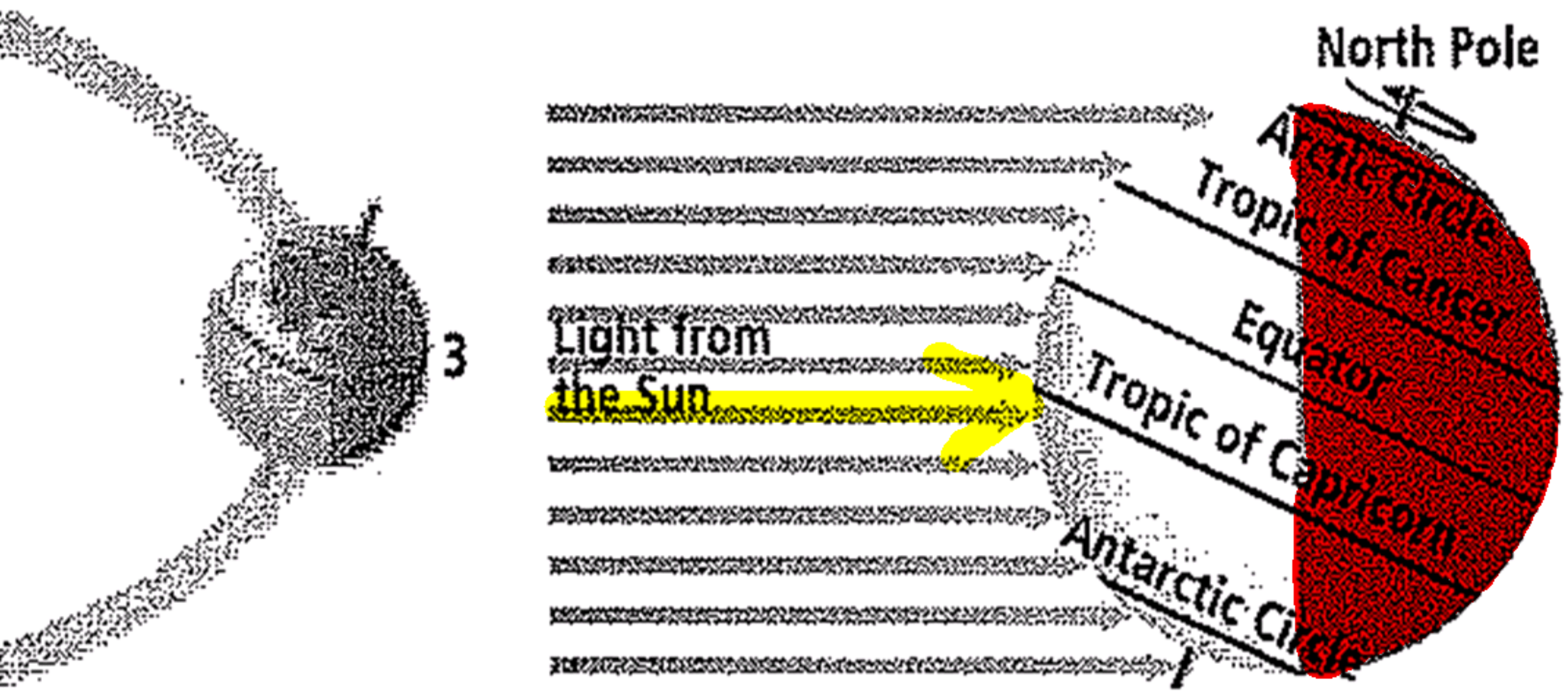
3. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

Position 3

4. Describe the sunlight conditions within the arctic and antarctic circles during the winter solstice.

5. Which numbered position of Earth in its orbit around the Sun corresponds to the

# and Equinox



# The Solstices and Equinoxes

Section 27.3

1. Which numbered position of Earth in its orbit around the Sun corresponds to the summer solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

Position 1 's rays hit Tropic of Cancer

2. Describe the sunlight conditions within the arctic and antarctic circles during the summer solstice.

 does not set within the Arctic circle  
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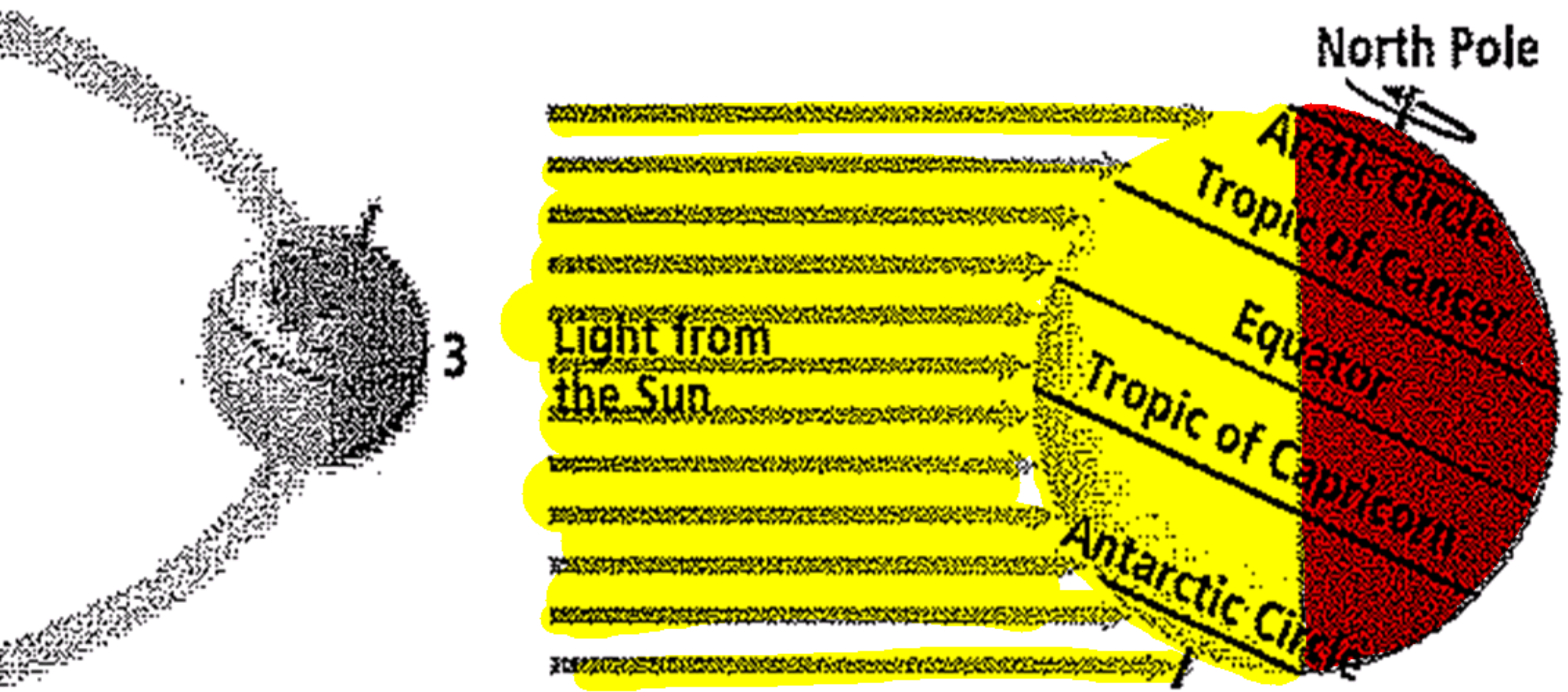
3. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

Position 3 's rays are vertical at Tropic of Capricorn

4. Describe the sunlight conditions within the arctic and antarctic circles during the winter solstice.

5. Which numbered position of Earth in its orbit around the Sun corresponds to the

# FOX



# The Solstices and Equinoxes

Section 27.3

1. Which numbered position of Earth in its orbit around the Sun corresponds to the summer solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

Position 1 's rays hit Tropic of Cancer

2. Describe the sunlight conditions within the arctic and antarctic circles during the summer solstice.

 does not set within the Arctic circle  
or it does not rise w/in the Antarctic circle

3. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

Position 3 's rays are vertical at Tropic of Capricorn

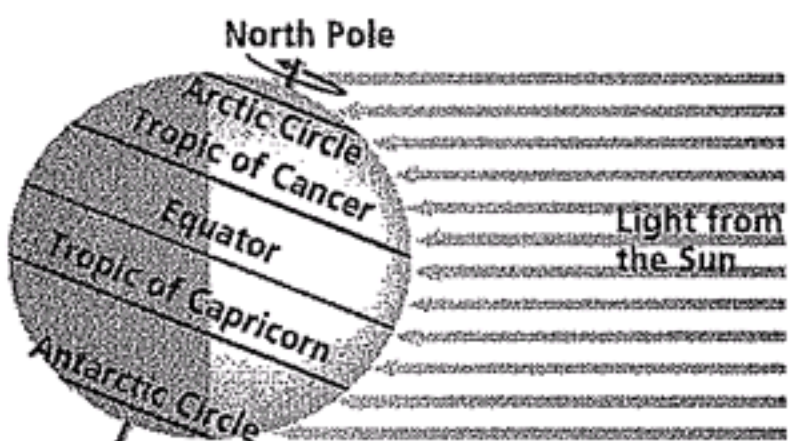
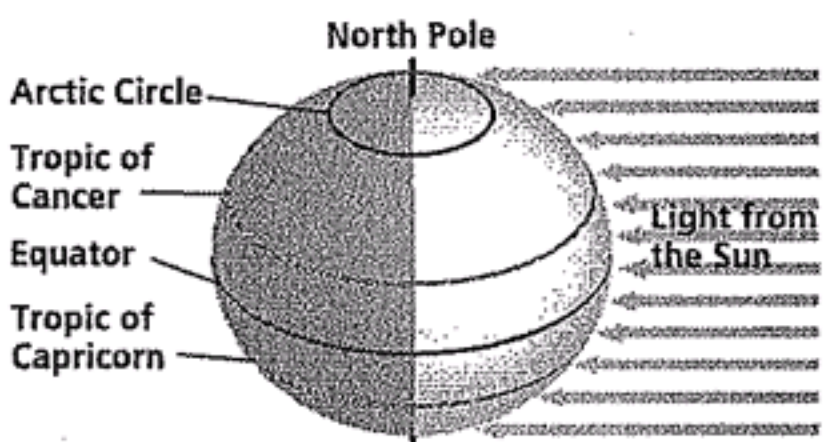
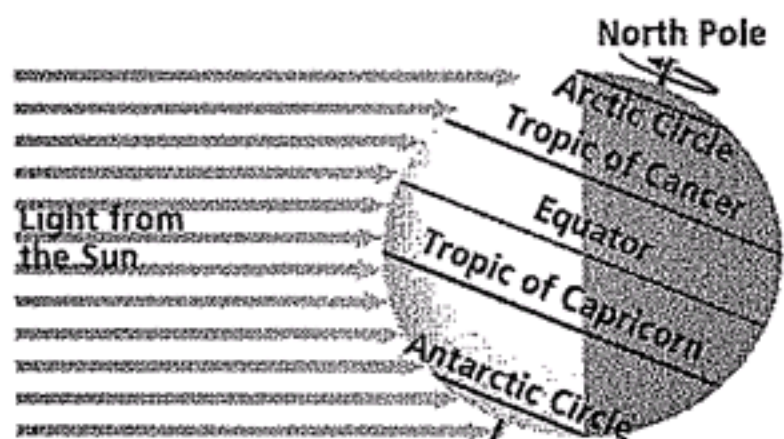
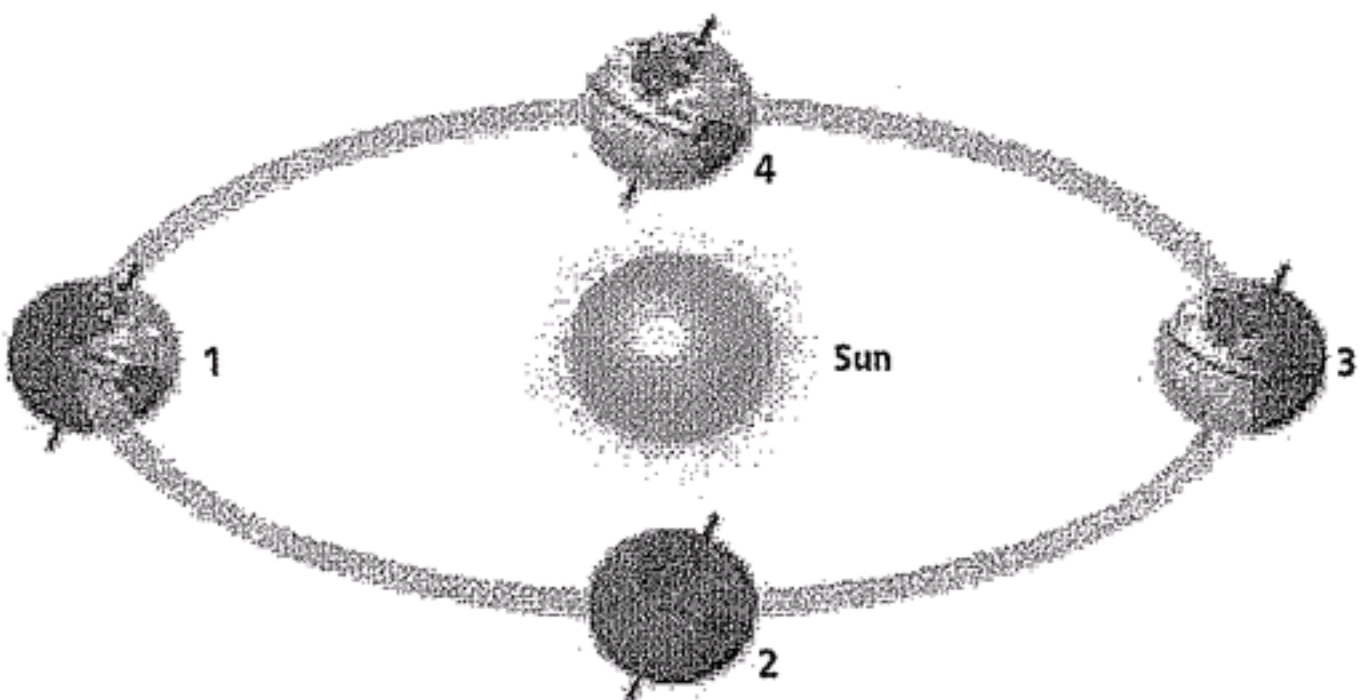
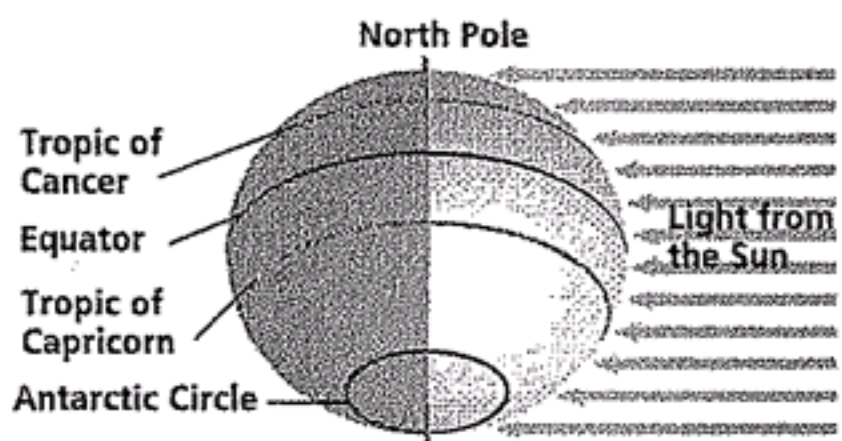
4. Describe the sunlight conditions within the arctic and antarctic circles during the winter solstice.

 doesn't set within the antarctic circle nor ...

5. Which numbered position of Earth in its orbit around the Sun corresponds to the

# The Solstices and Equinoxes

Use with Chapter 27  
Section 27.3



# The Solstices and Equinoxes

Section 27.3

1. Which numbered position of Earth in its orbit around the Sun corresponds to the summer solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

Position 1 's rays hit Tropic of Cancer

2. Describe the sunlight conditions within the arctic and antarctic circles during the summer solstice.

 does not set within the Arctic circle  
or it does not rise w/in the Antarctic circle

3. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?

Position 3 's rays are vertical at Tropic of Capricorn

4. Describe the sunlight conditions within the arctic and antarctic circles during the winter solstice.

 doesn't set within the antarctic circle nor rise w/in Arctic

5. Which numbered position of Earth in its orbit around the Sun corresponds to the

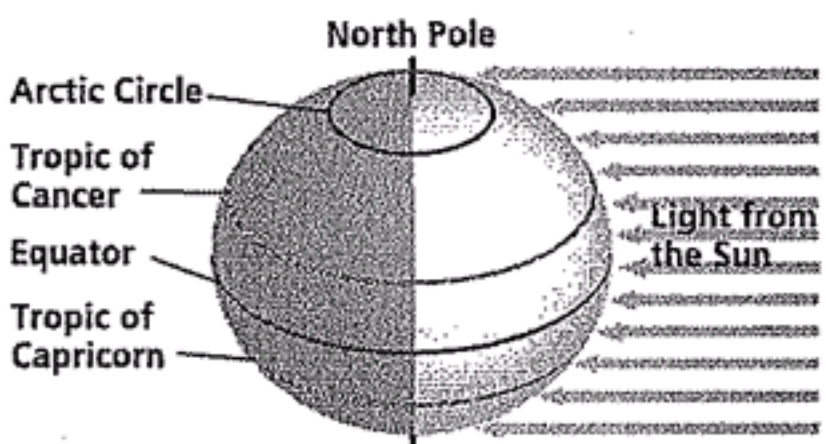
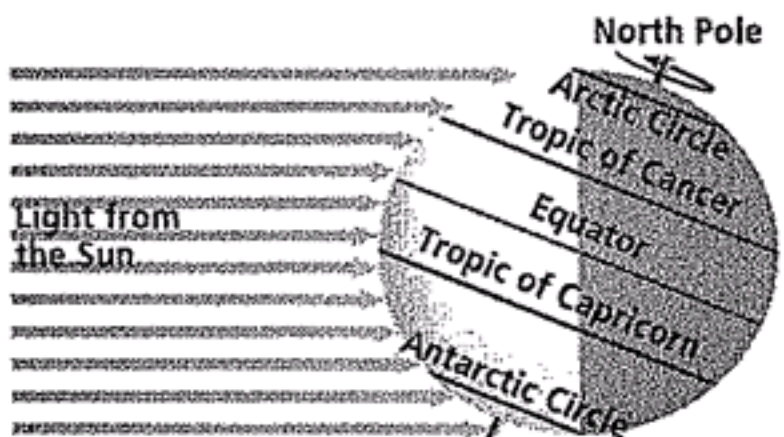
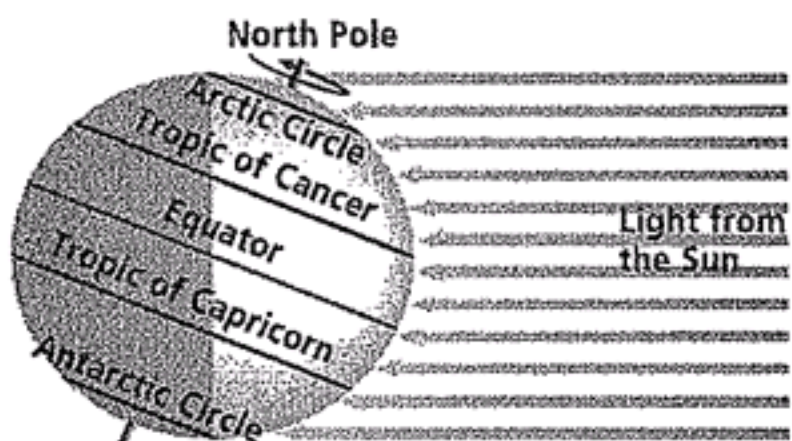
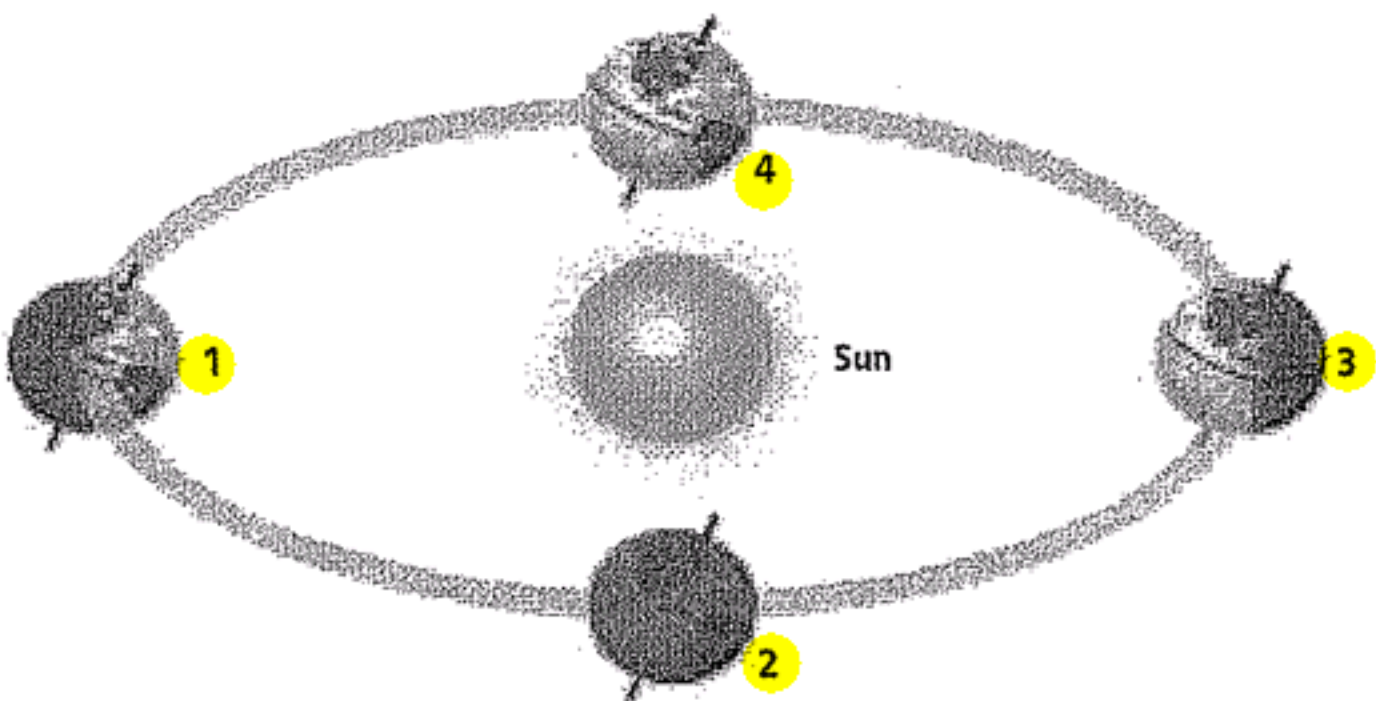
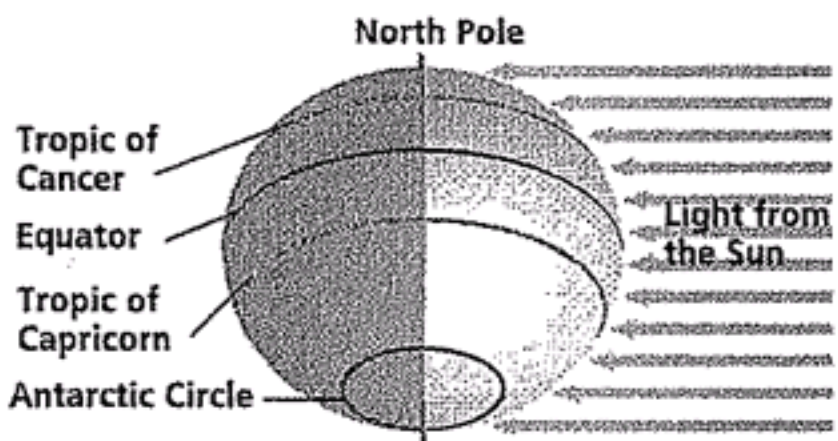
5. Which numbered position of Earth in its orbit around the Sun corresponds to the autumnal equinox? At this time, where on Earth are the Sun's rays vertical?

6. Which numbered position of Earth in its orbit around the Sun corresponds to the vernal equinox? At this time, where on Earth are the Sun's rays vertical?

7. How do the number of daylight hours compare between the northern and southern hemispheres when Earth is in position 3? Position 4?

# The Solstices and Equinoxes

Use with Chapter 27  
Section 27.3

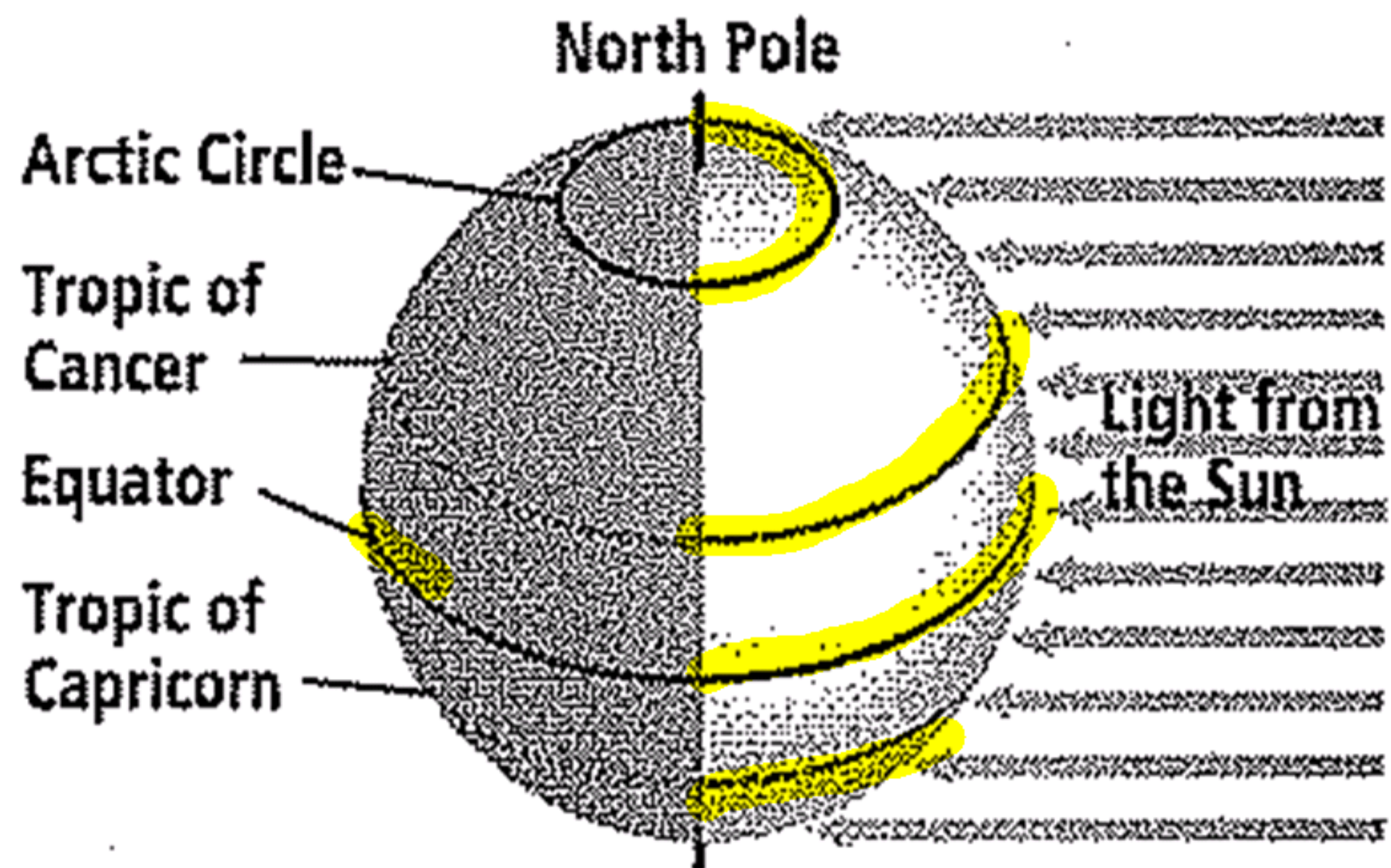
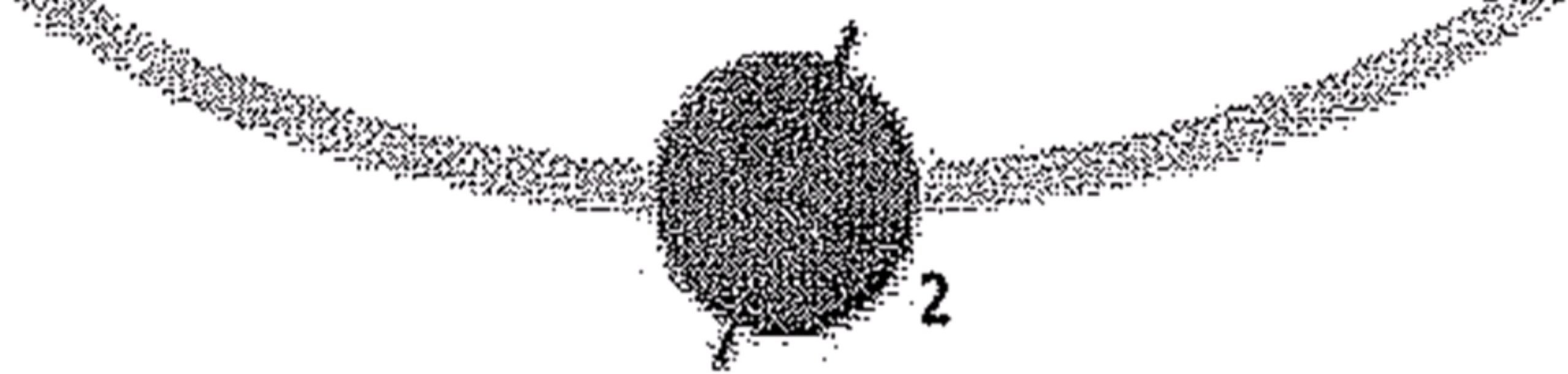


5. Which numbered position of Earth in its orbit around the Sun corresponds to the autumnal equinox? At this time, where on Earth are the Sun's rays vertical?

Position 2

6. Which numbered position of Earth in its orbit around the Sun corresponds to the vernal equinox? At this time, where on Earth are the Sun's rays vertical?

7. How do the number of daylight hours compare between the northern and southern hemispheres when Earth is in position 3? Position 4?



5. Which numbered position of Earth in its orbit around the Sun corresponds to the autumnal equinox? At this time, where on Earth are the Sun's rays vertical?

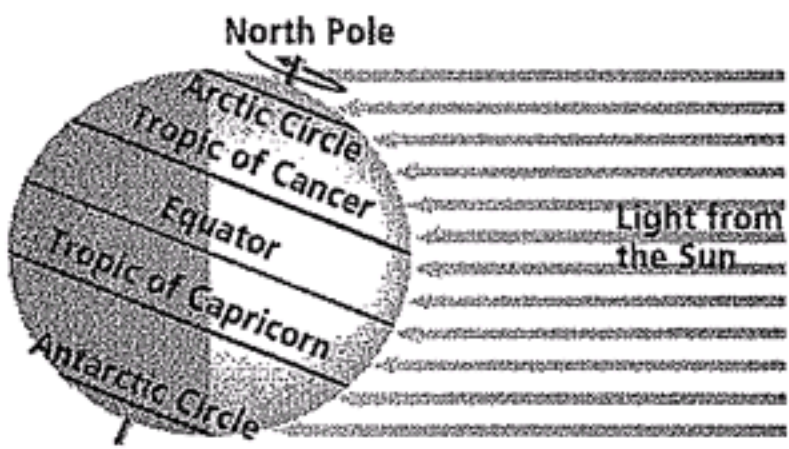
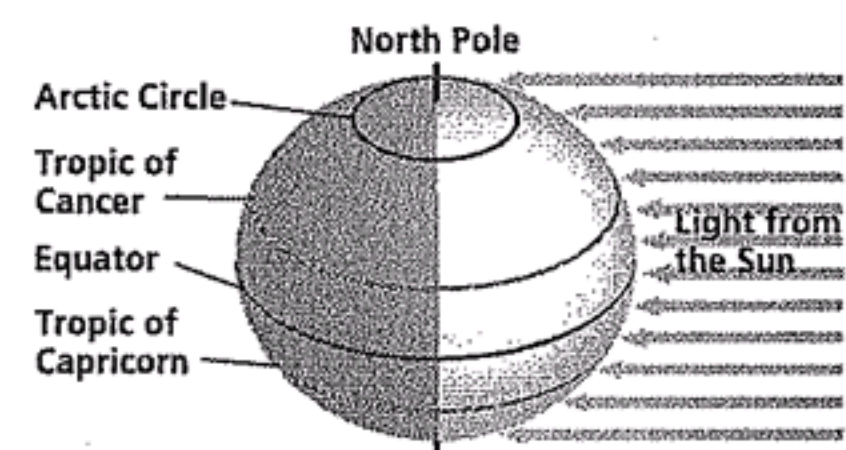
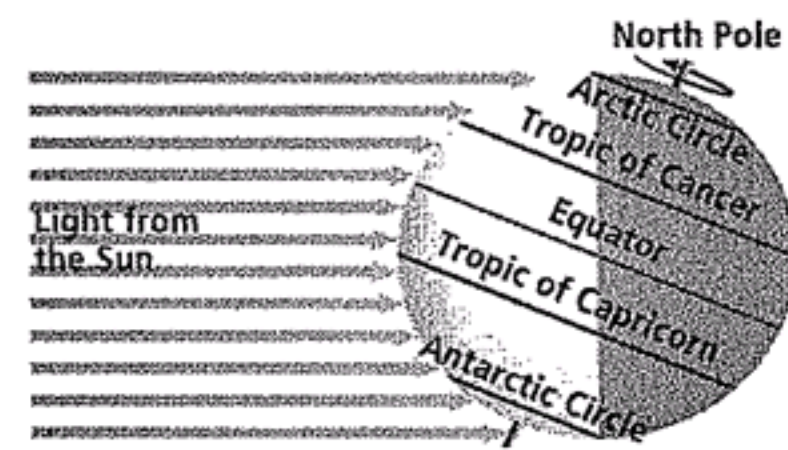
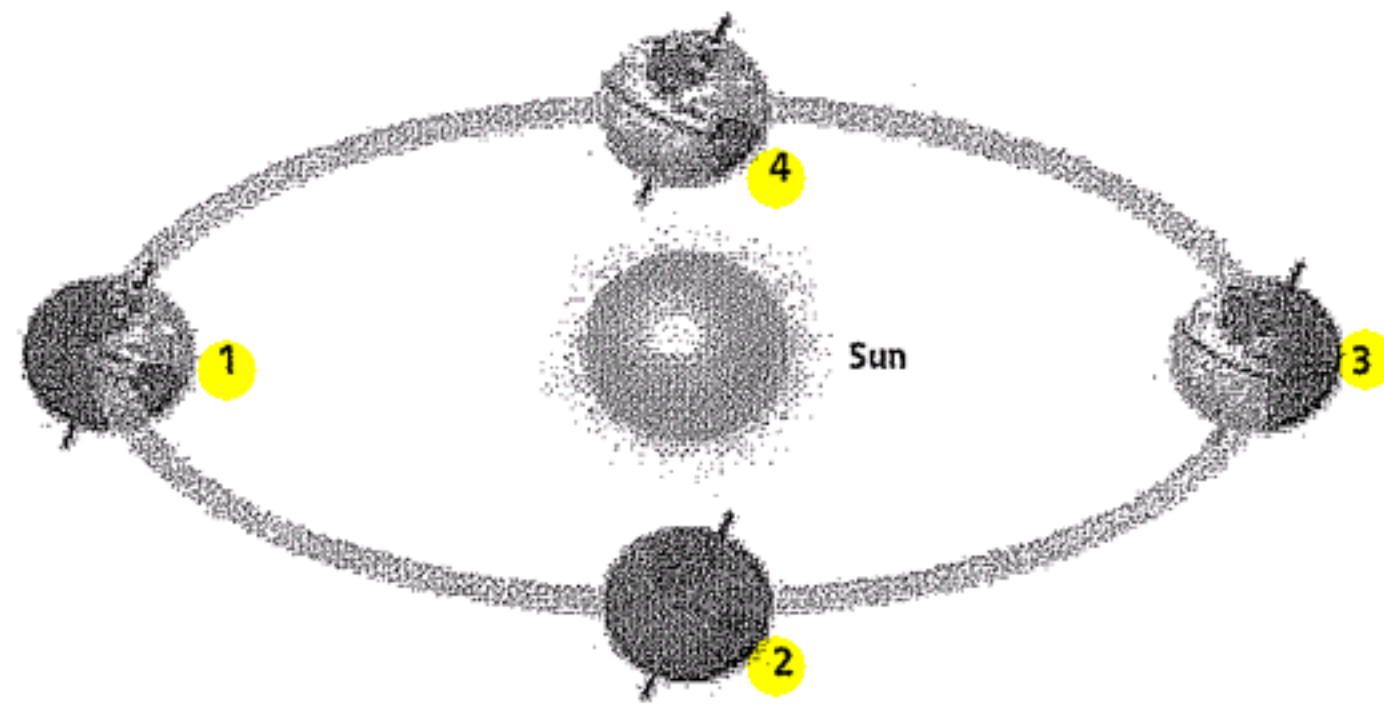
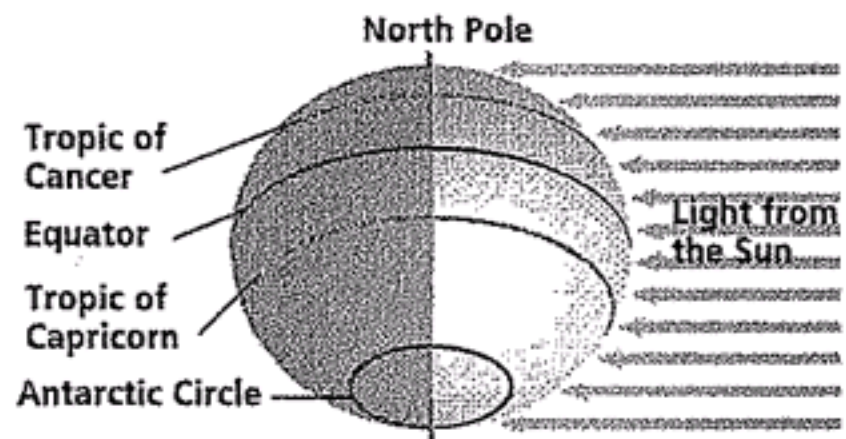
Position 2      ☉'s rays are Vertical @ Equator

6. Which numbered position of Earth in its orbit around the Sun corresponds to the vernal equinox? At this time, where on Earth are the Sun's rays vertical?

7. How do the number of daylight hours compare between the northern and southern hemispheres when Earth is in position 3? Position 4?

# The Solstices and Equinoxes

Use with Chapter 27  
Section 27.3



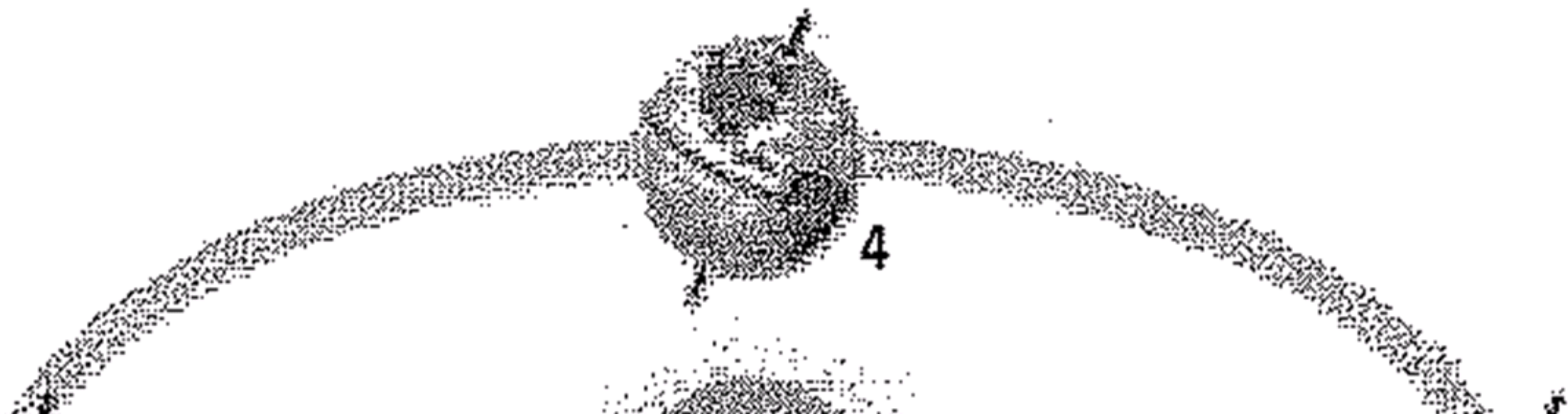
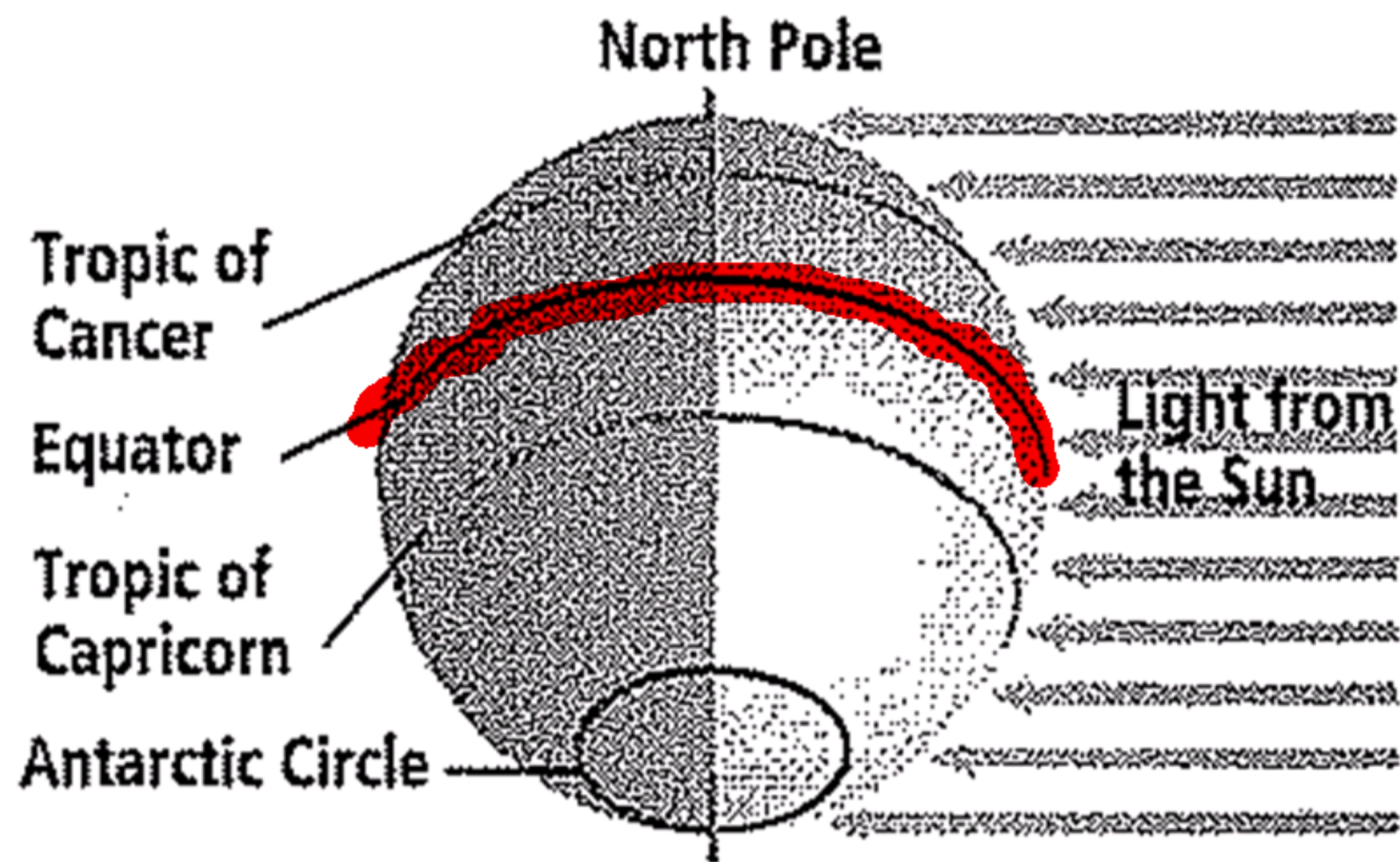
5. Which numbered position of Earth in its orbit around the Sun corresponds to the autumnal equinox? At this time, where on Earth are the Sun's rays vertical?

Position 2      ☉'s rays are Vertical @ Equator

6. Which numbered position of Earth in its orbit around the Sun corresponds to the vernal equinox? At this time, where on Earth are the Sun's rays vertical?

Position 4

7. How do the number of daylight hours compare between the northern and southern hemispheres when Earth is in position 3? Position 4?



5. Which numbered position of Earth in its orbit around the Sun corresponds to the autumnal equinox? At this time, where on Earth are the Sun's rays vertical?

Position 2      ☉'s rays are Vertical @ Equator

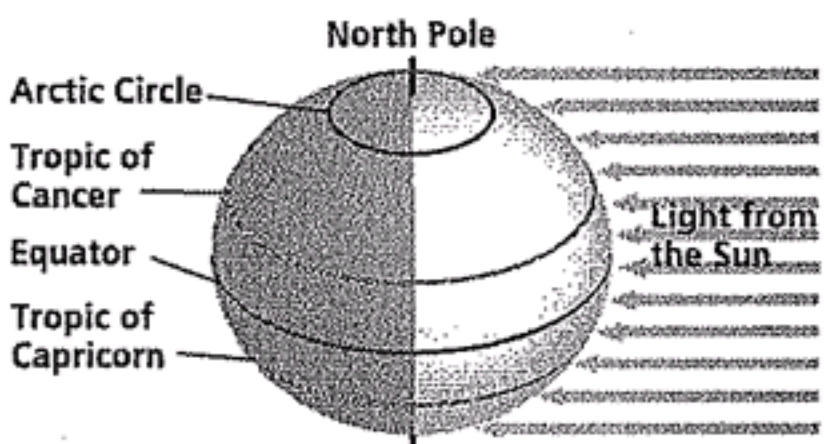
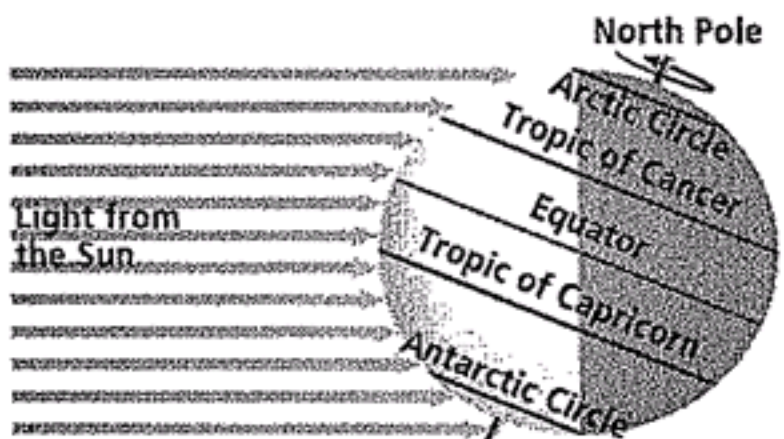
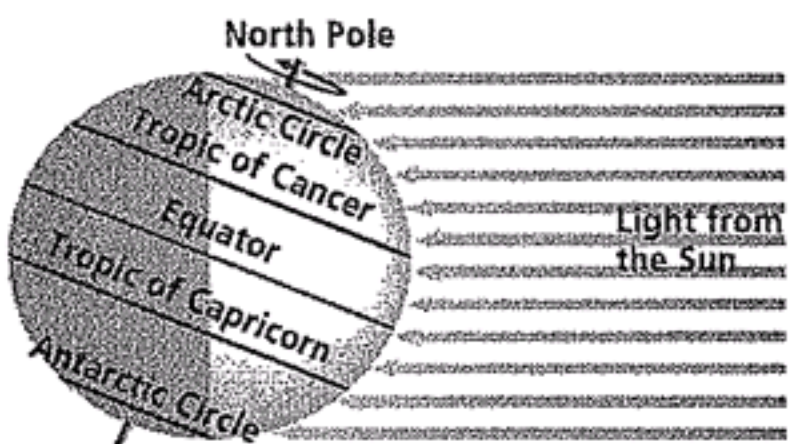
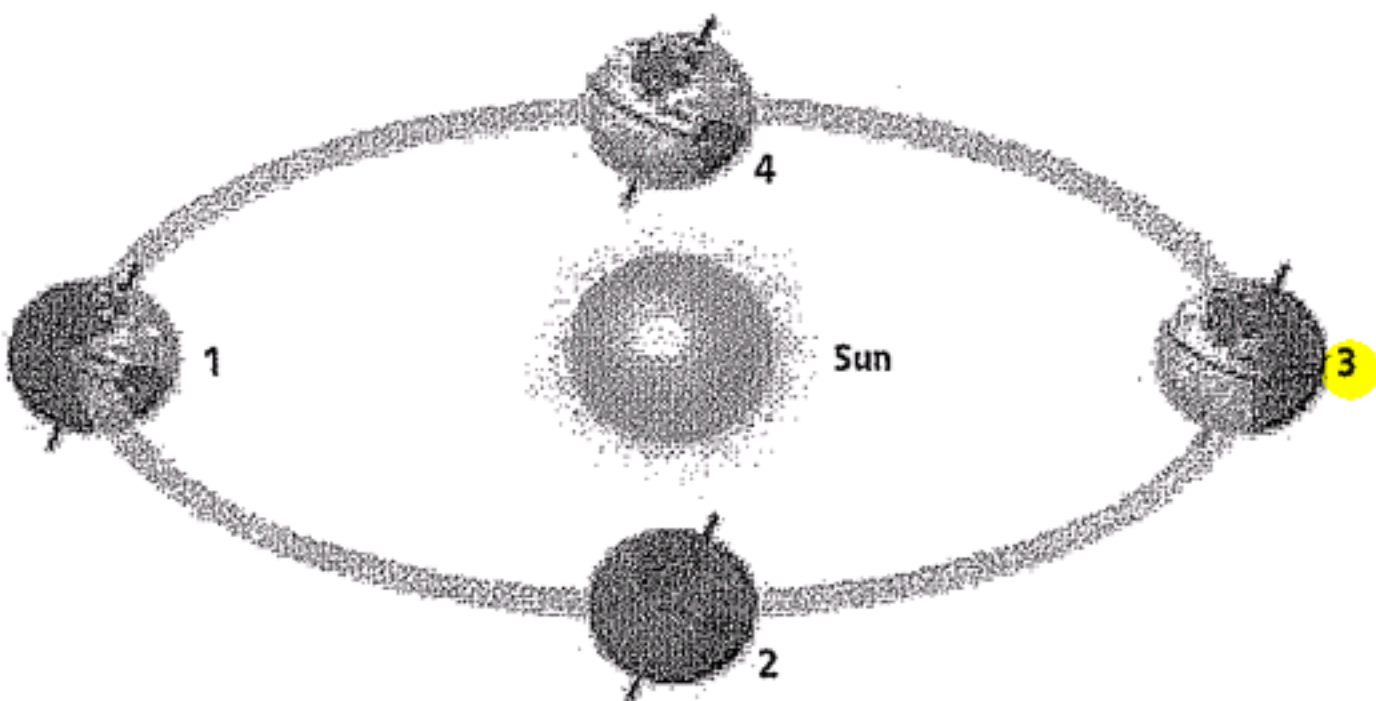
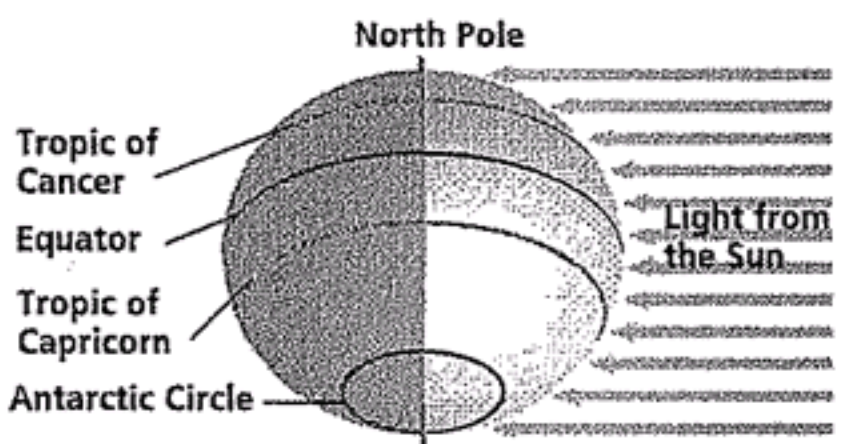
6. Which numbered position of Earth in its orbit around the Sun corresponds to the vernal equinox? At this time, where on Earth are the Sun's rays vertical?

Position 4      ☉'s rays are Vertical @ Equator

7. How do the number of daylight hours compare between the northern and southern hemispheres when Earth is in position 3? Position 4?

# The Solstices and Equinoxes

Use with Chapter 27  
Section 27.3



5. Which numbered position of Earth in its orbit around the Sun corresponds to the autumnal equinox? At this time, where on Earth are the Sun's rays vertical?

Position 2      ☉'s rays are Vertical @ Equator

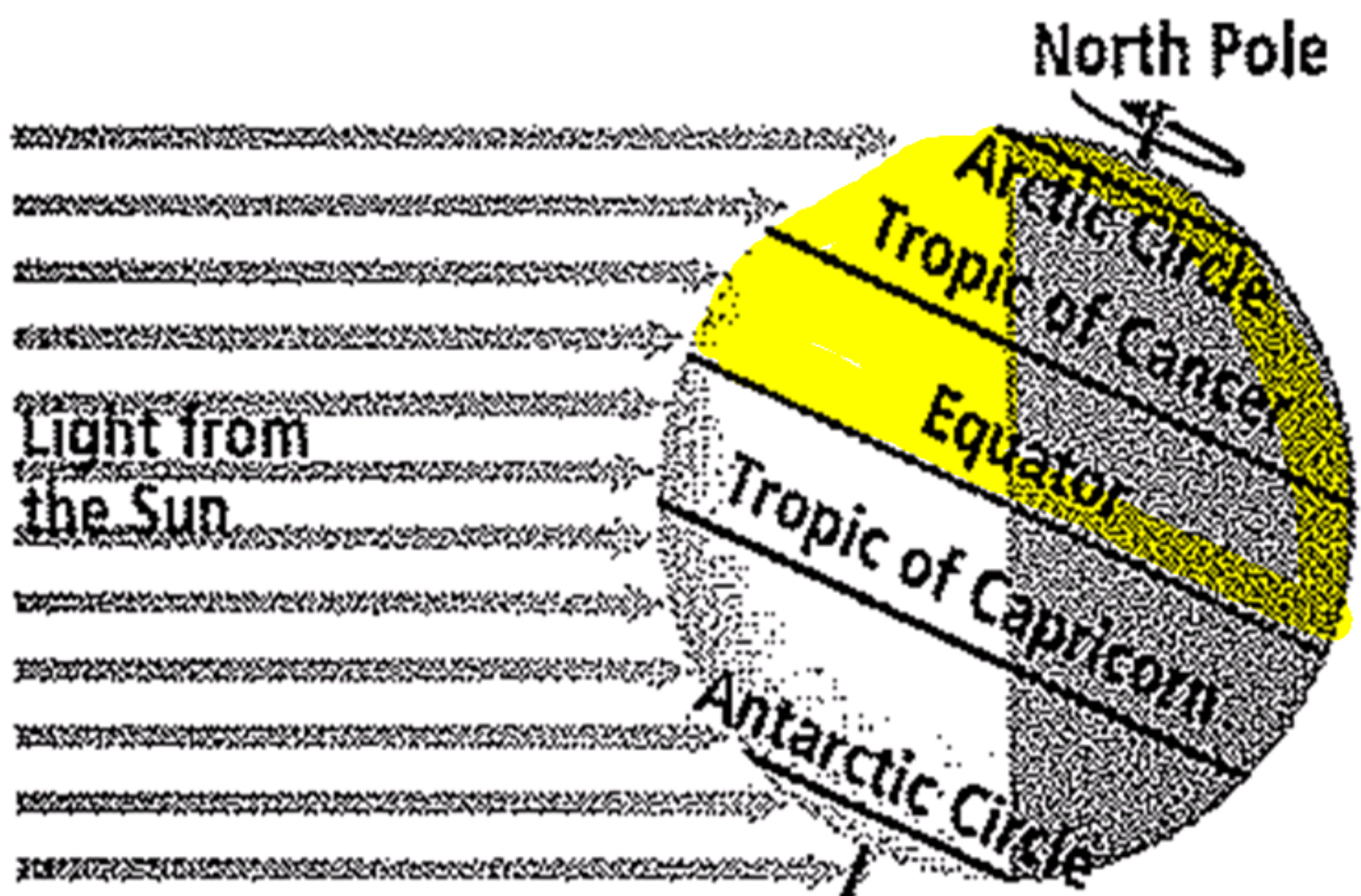
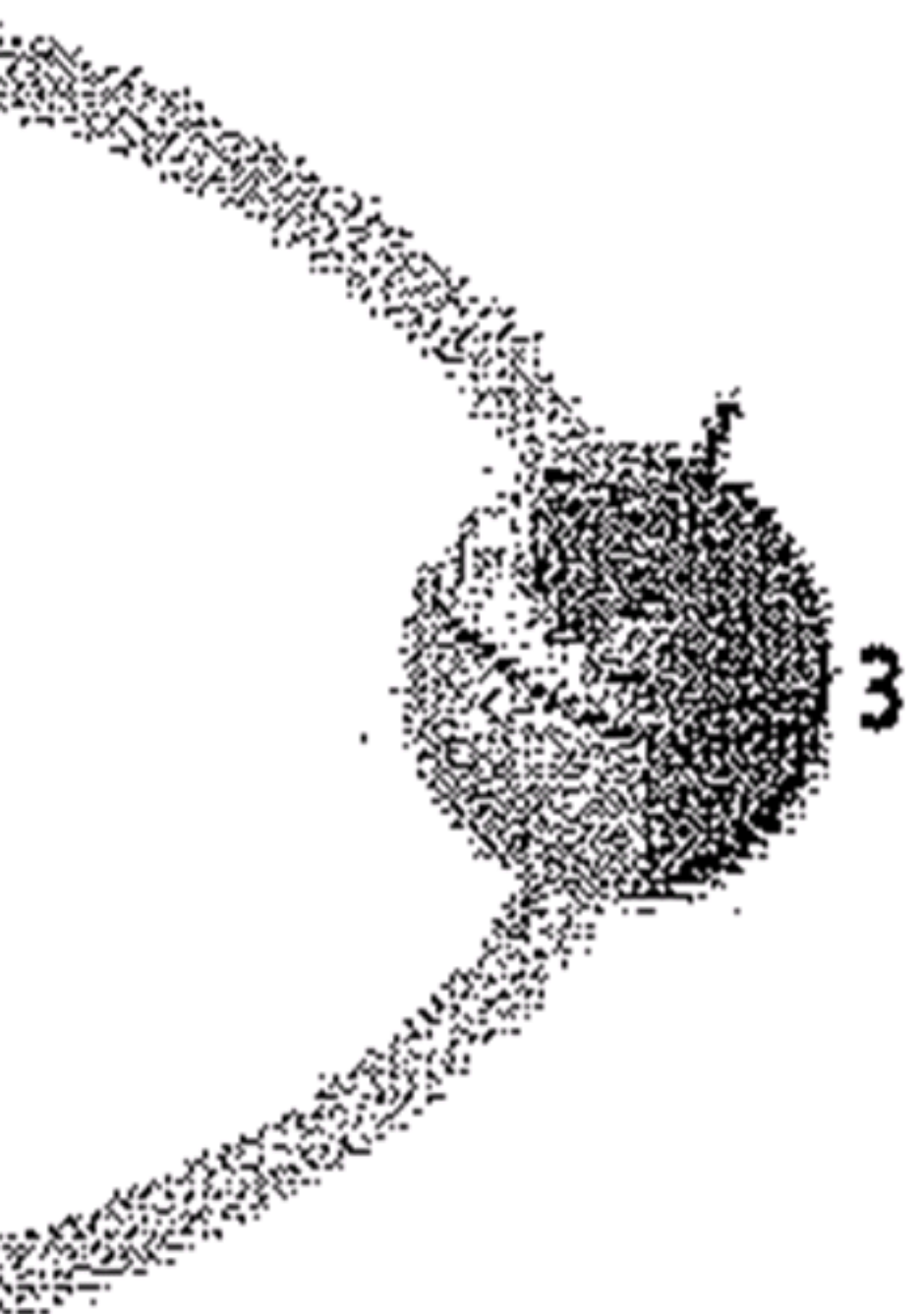
6. Which numbered position of Earth in its orbit around the Sun corresponds to the vernal equinox? At this time, where on Earth are the Sun's rays vertical?

Position 4      ☉'s rays are Vertical @ Equator

7. How do the number of daylight hours compare between the northern and southern hemispheres when Earth is in position 3? Position 4?

Position 3      # of hours ?

# and Equinox



5. Which numbered position of Earth in its orbit around the Sun corresponds to the autumnal equinox? At this time, where on Earth are the Sun's rays vertical?

Position 2 ☉'s rays are Vertical @ Equator

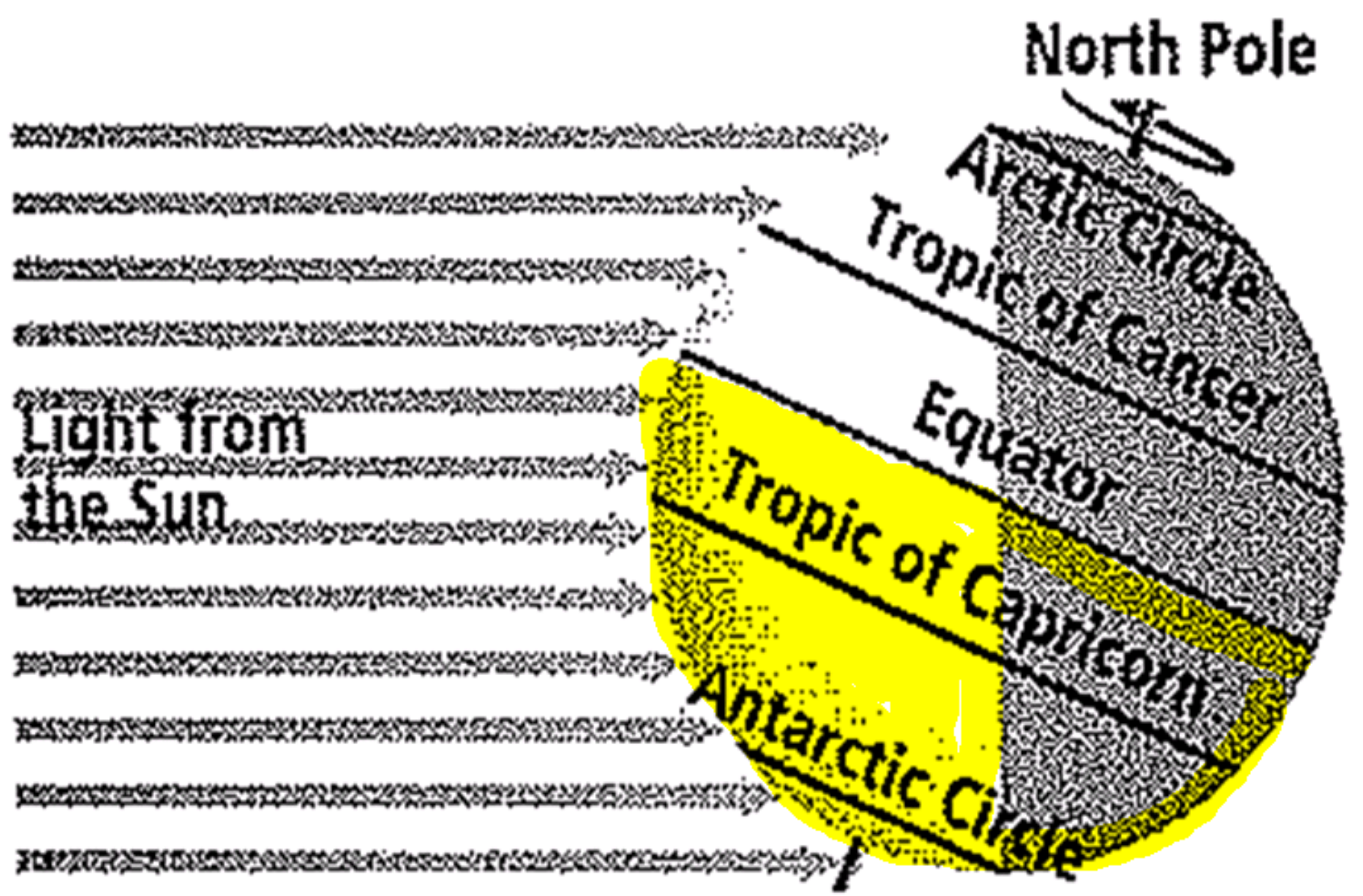
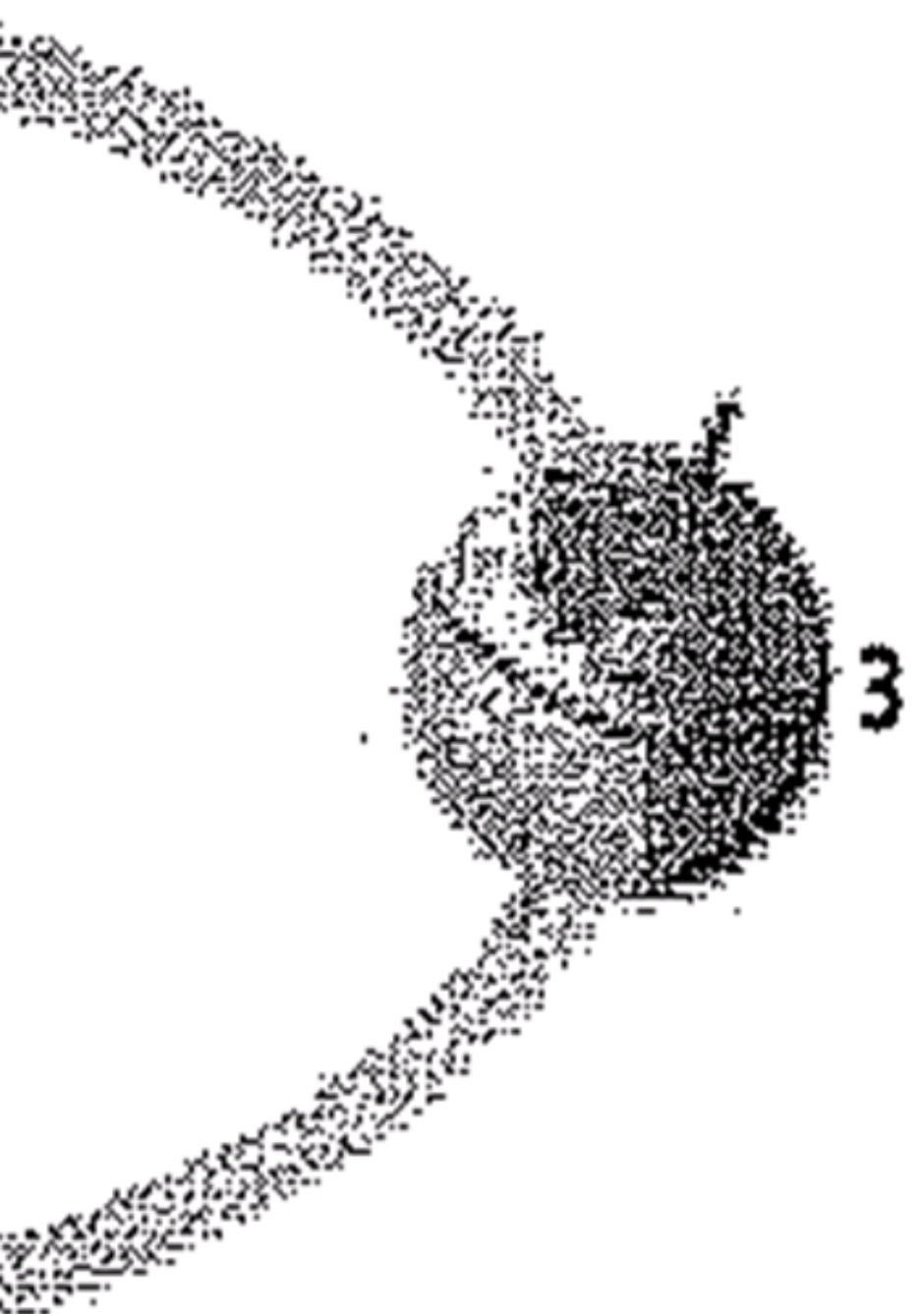
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Position 4 ☉'s rays are Vertical @ Equator

7. How do the number of daylight hours compare between the northern and southern hemispheres when Earth is in position 3? Position 4?

Position 3 # of daylight hours in N. hemi. is at minimum; 6 hrs / 18 night

# and Equinox



5. Which numbered position of Earth in its orbit around the Sun corresponds to the autumnal equinox? At this time, where on Earth are the Sun's rays vertical?

Position 2 ☉'s rays are Vertical @ Equator

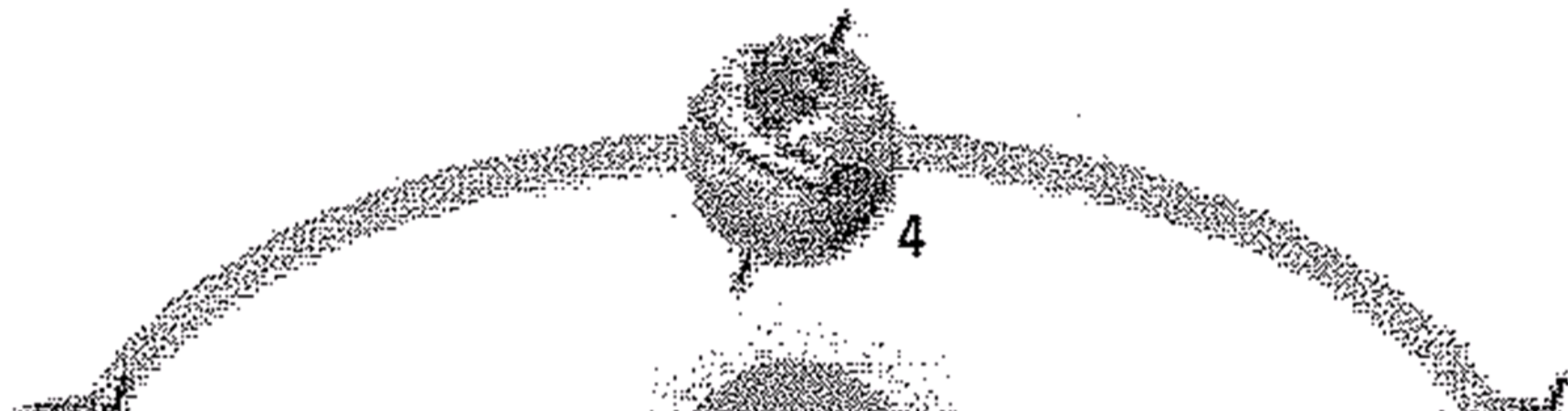
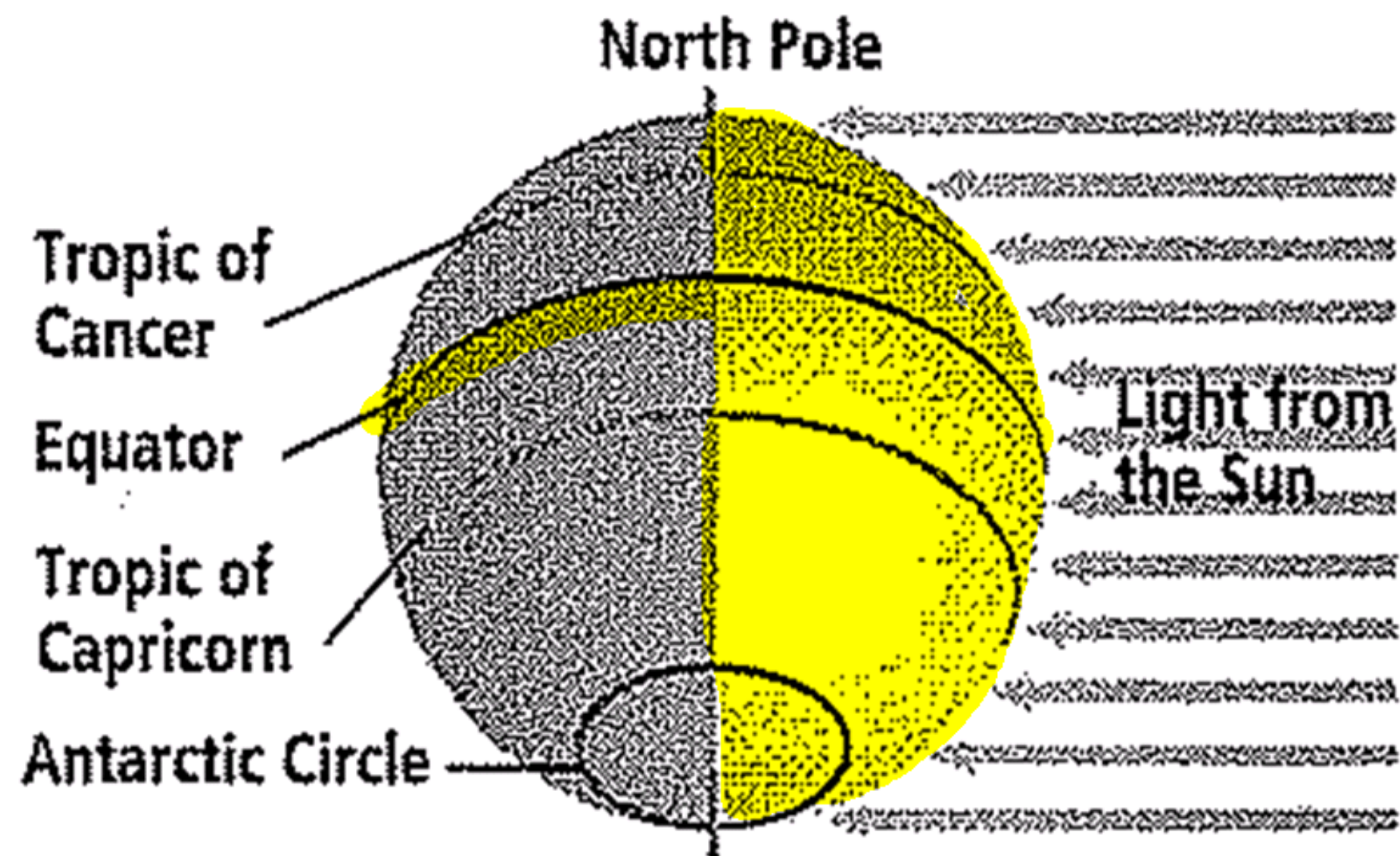
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Position 4 ☉'s rays are Vertical @ Equator

7. How do the number of daylight hours compare between the northern and southern hemispheres when Earth is in position 3? Position 4?

Position 3 # of daylight hours in N. hemi is at minimum; Southern Hemi is @ Maximum  
 Position 4 ?

12 hrs day  
 6 hrs of Night



5. Which numbered position of Earth in its orbit around the Sun corresponds to the autumnal equinox? At this time, where on Earth are the Sun's rays vertical?

Position 2      ☉'s rays are Vertical @ Equator

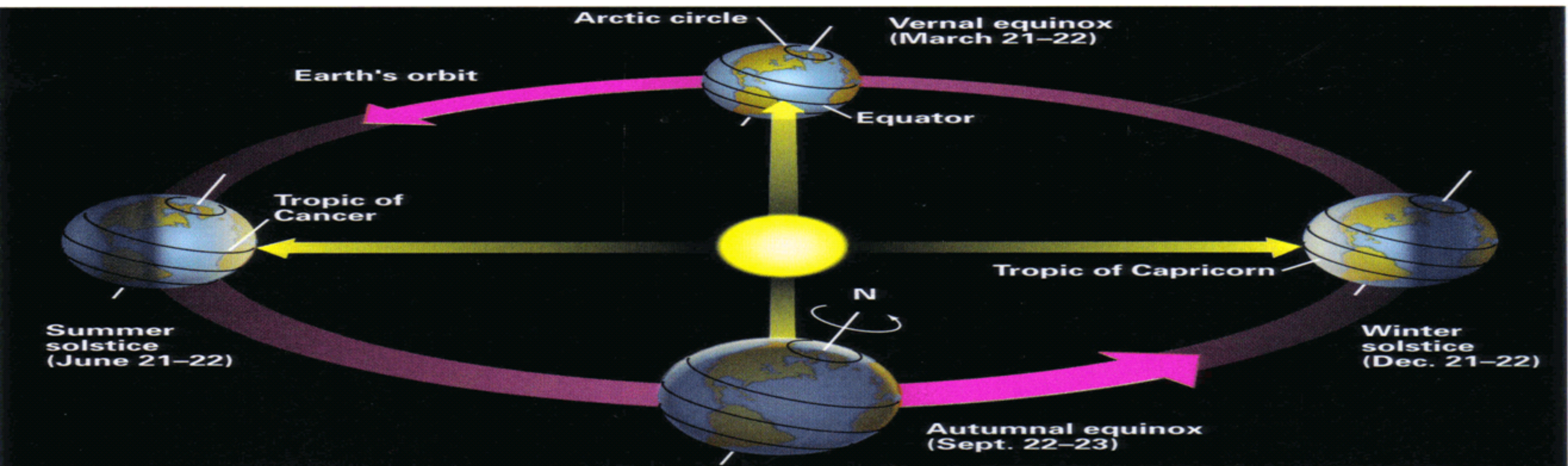
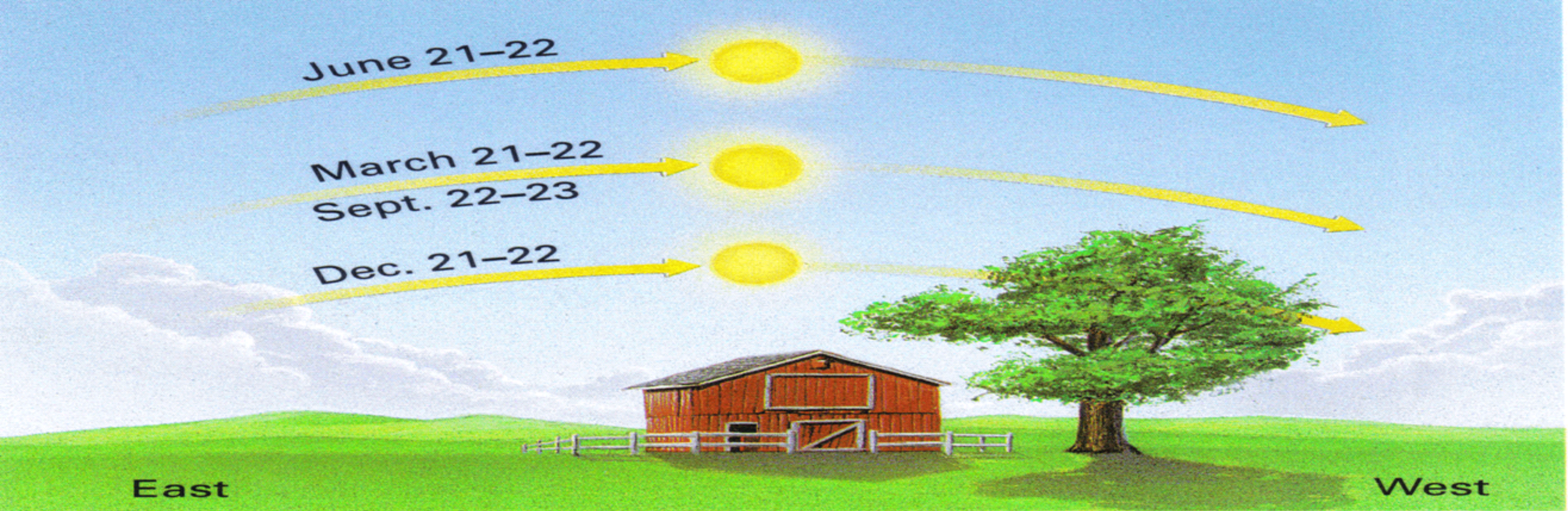
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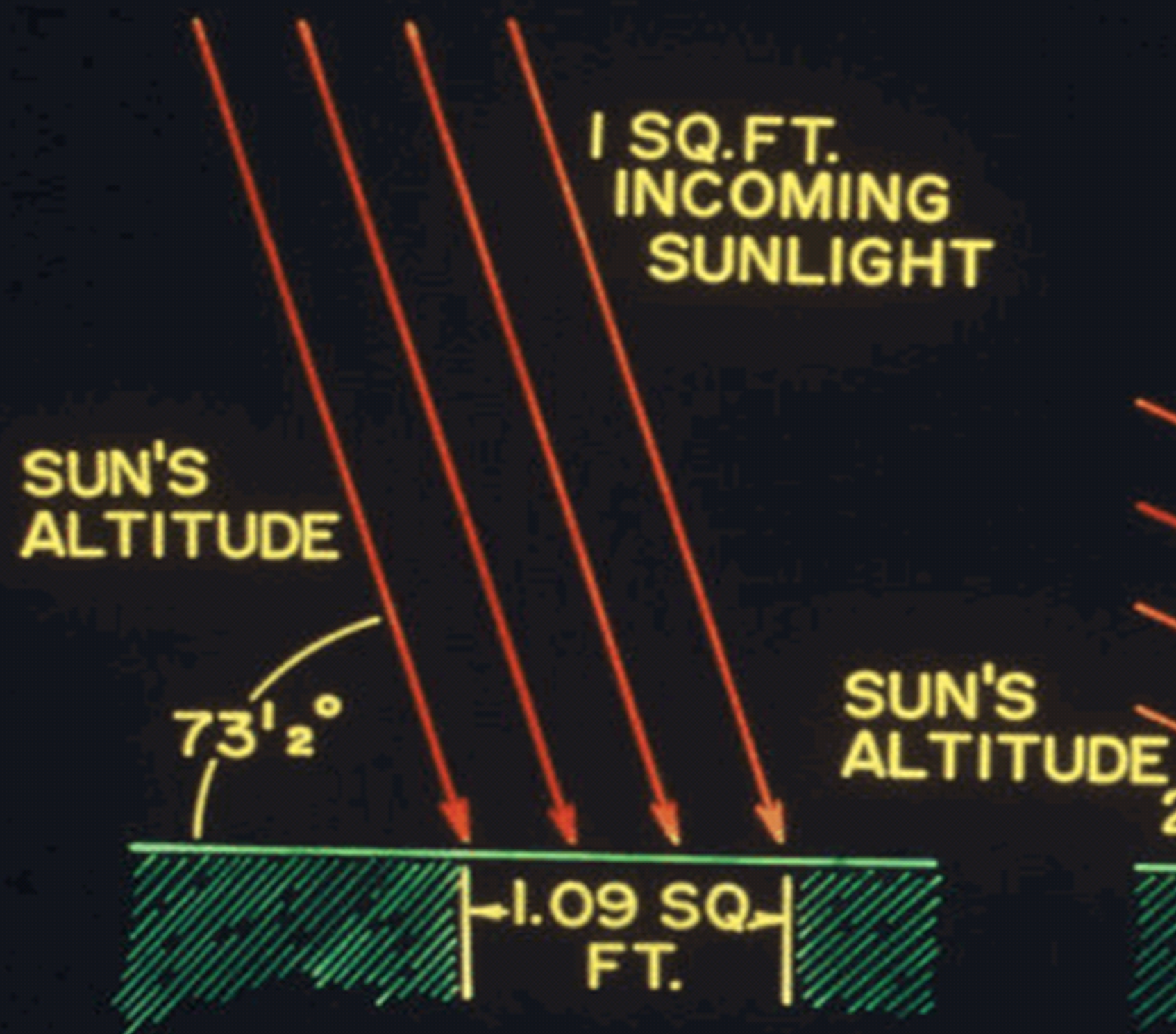
7. How do the number of daylight hours compare between the northern and southern hemispheres when Earth is in position 3? Position 4?

Position 3      # of daylight hours in N. hemi is at minimum; Southern Hemi is @ Maximum

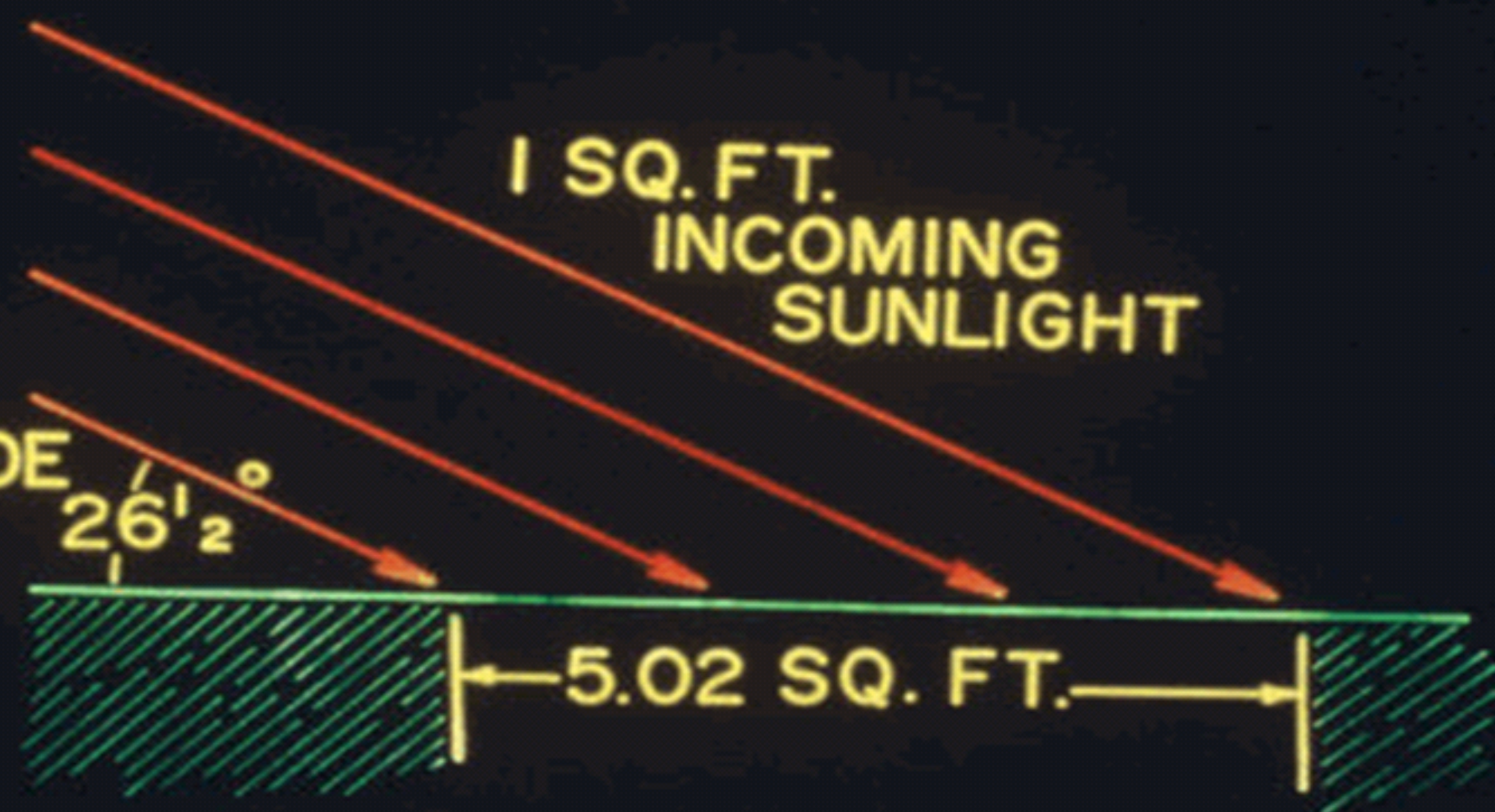
Position 4      day and night are equal



40°N JUNE 21



40°N DEC. 22



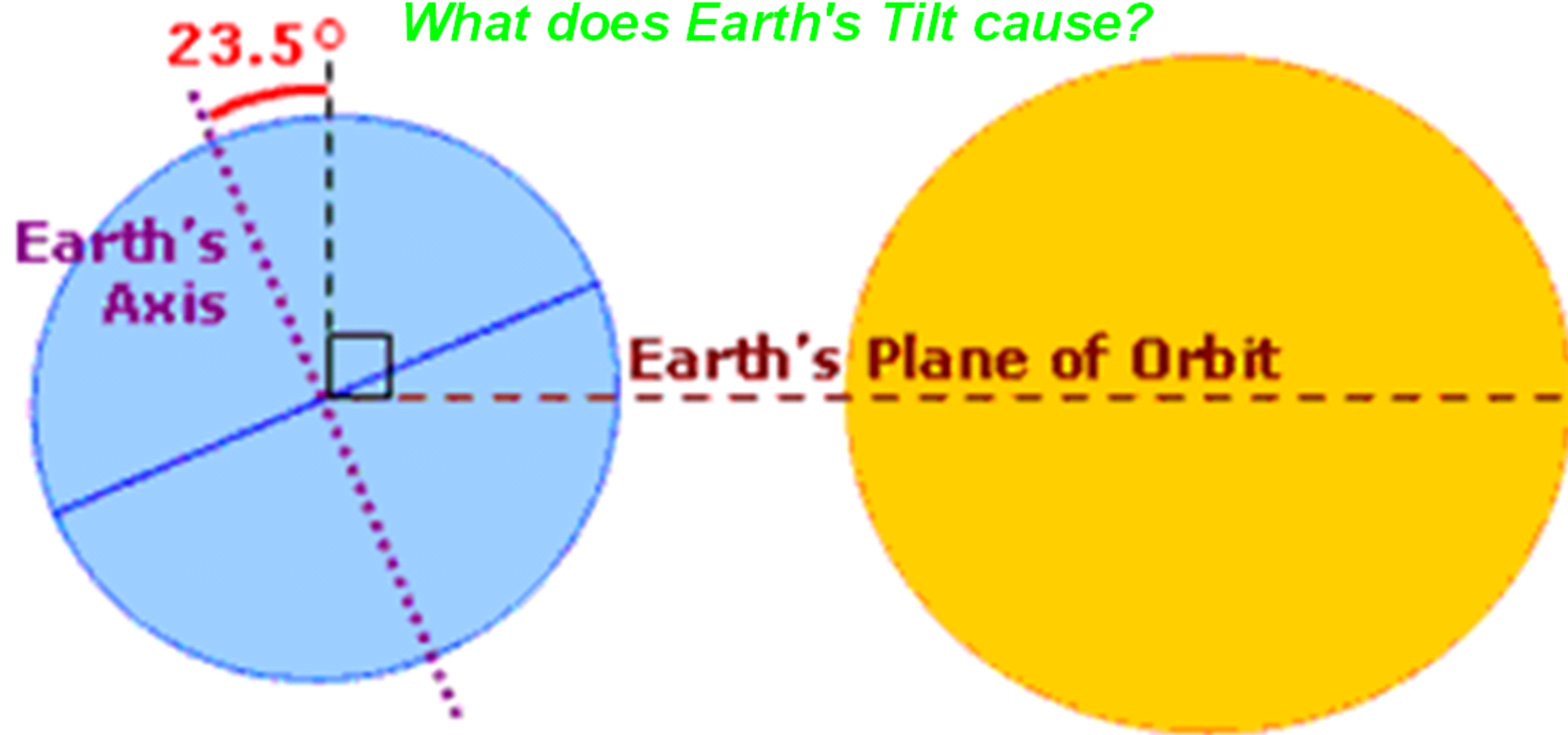


Use with Chapter 27  
Section 27.3

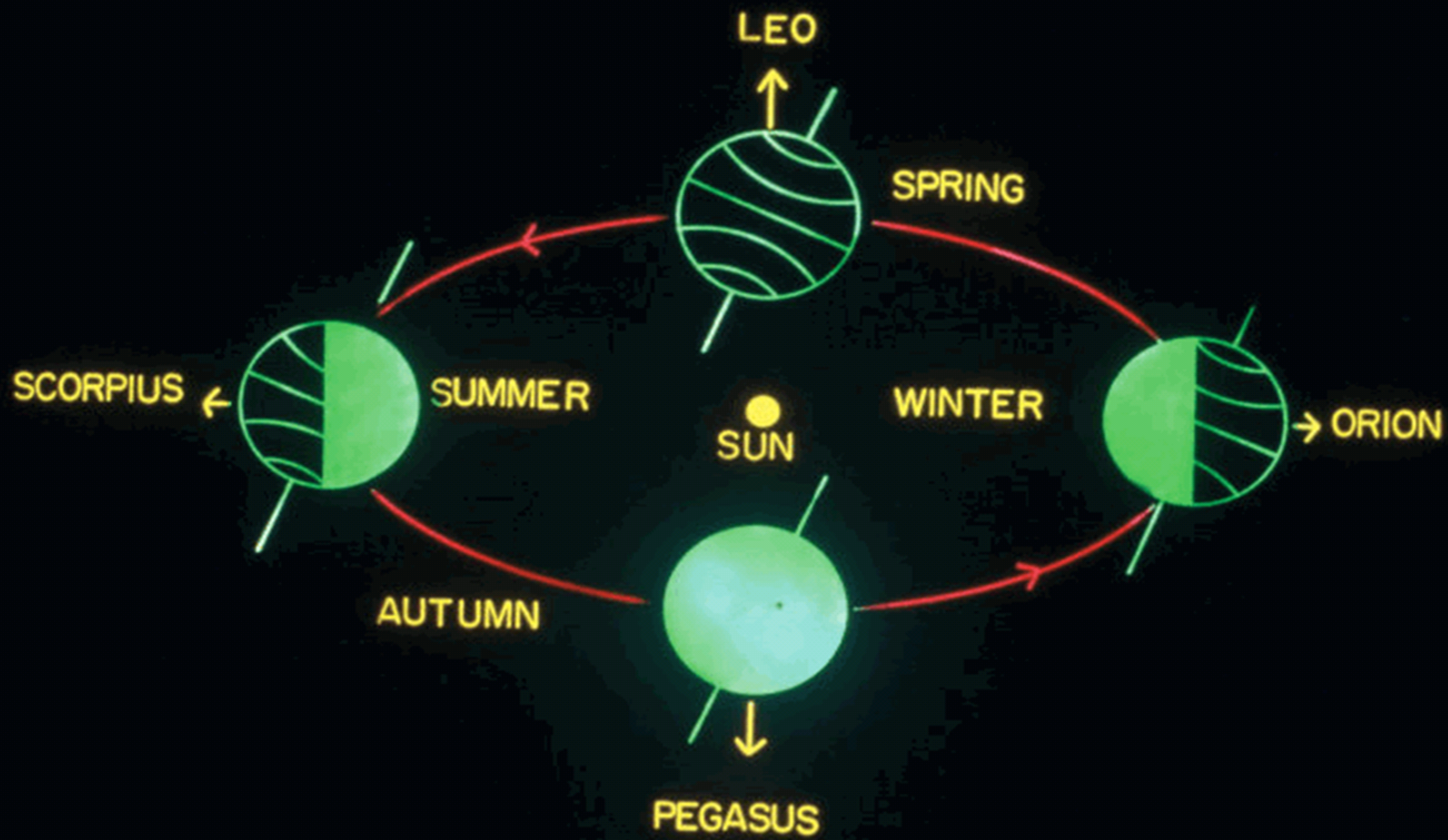
# The Solstices and Equinoxes

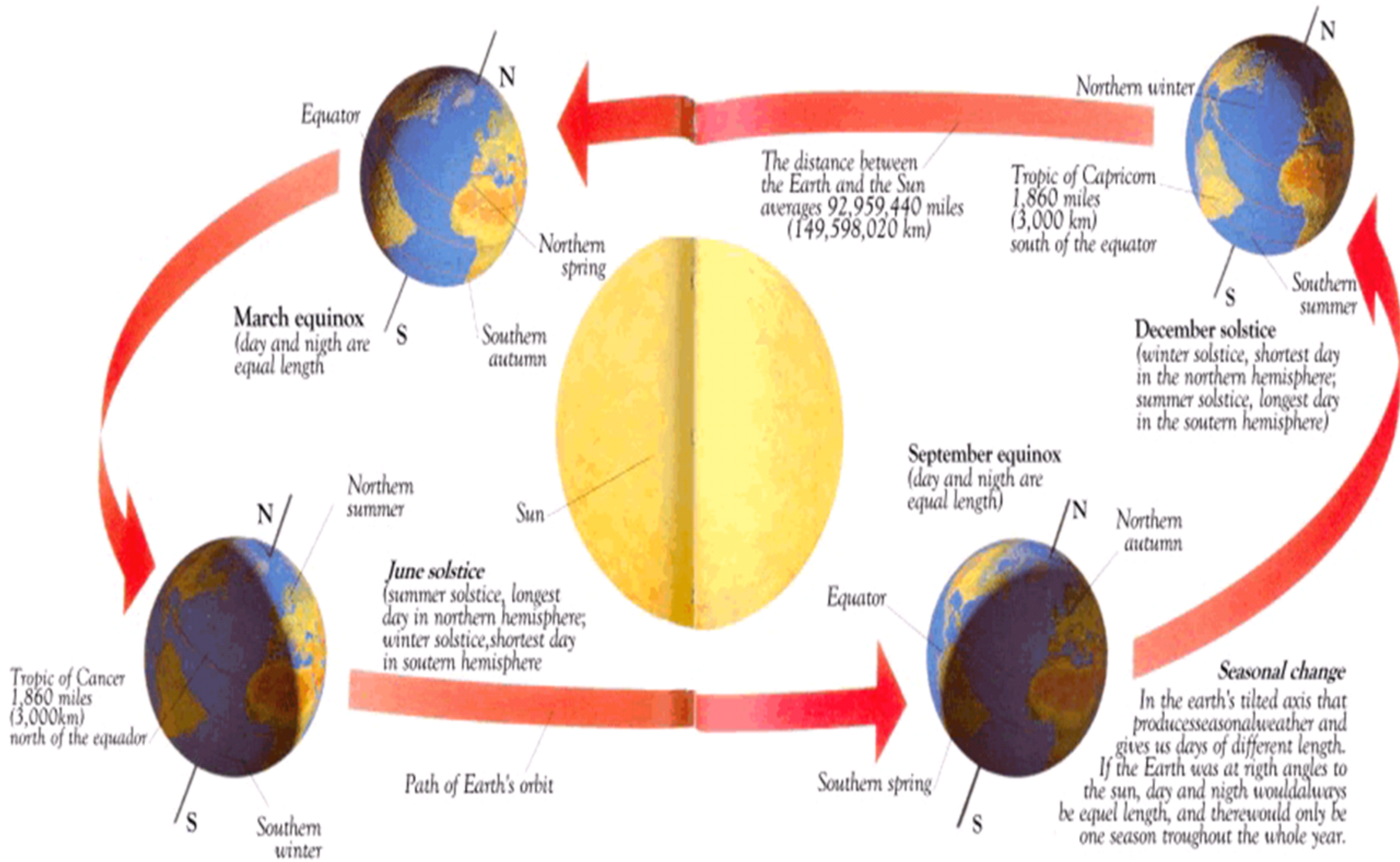
1. Which numbered position of Earth in its orbit around the Sun corresponds to the summer solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?  
\_\_\_\_\_  
\_\_\_\_\_
2. Describe the sunlight conditions within the arctic and antarctic circles during the summer solstice.  
\_\_\_\_\_  
\_\_\_\_\_
3. Which numbered position of Earth in its orbit around the Sun corresponds to the winter solstice in the northern hemisphere? At this time, where on Earth are the Sun's rays vertical?  
\_\_\_\_\_  
\_\_\_\_\_
4. Describe the sunlight conditions within the arctic and antarctic circles during the winter solstice.  
\_\_\_\_\_  
\_\_\_\_\_
5. Which numbered position of Earth in its orbit around the Sun corresponds to the autumnal equinox? At this time, where on Earth are the Sun's rays vertical?  
\_\_\_\_\_  
\_\_\_\_\_
6. Which numbered position of Earth in its orbit around the Sun corresponds to the vernal equinox? At this time, where on Earth are the Sun's rays vertical?  
\_\_\_\_\_  
\_\_\_\_\_
7. How do the number of daylight hours compare between the northern and southern hemispheres when Earth is in position 3? Position 4?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*What does Earth's Tilt cause?*









92x

$$\textcircled{\#3} \frac{\cancel{\text{X}} \textcircled{3.36\text{X}}}{27.3 \text{ days}} \times \frac{92}{1} = \frac{92}{27.3}$$

(2)  $\textcircled{29.5}$

$$6 \overline{) 800.15} \quad \begin{array}{r} 133.3 \\ \hline \end{array}$$

