

Time and Again

20

Facts and Reminders

Historical Time

There are two main divisions of time—time roughly reckoned before and after the birth of Christ. Most of the time in the ancient world is recorded as B.C. (before Christ). Some books use B.C.E. (before the common era). This time record counts backwards from the approximate date of Christ's birth until the earliest dates in recorded history. The bigger the number named with B.C. or B.C.E., the further back in time the event occurred. Numerical dates in B.C. become smaller as they approach the present so 44 B.C. is much closer to the present than 3500 B.C. (The small c. is read "circa" and indicates an approximate date.)

Examples

- c. 2000 B.C.—Invention of the shadow clock
- c. 100 B.C.—Birth of Julius Caesar
- 44 B.C.—Death of Julius Caesar

The invention of the shadow clock about 2000 B.C. happened 1,900 years before the birth of Julius Caesar in 100 B.C.

A.D. OR C.E.

A.D. (*anno Domini*) dates events from the approximate time of the birth of Christ. *Anno Domini* is a Latin expression meaning "in the year of Our Lord." The year 2000 A.D. is about 2,000 years since the birth of Christ. The abbreviation C.E. (common era) means exactly the same time as A.D. The year 2000 can be written as 2000 A.D. or 2000 C.E. Some books use C.E. and others use A.D. Numerical dates in A.D. (or C.E.) become larger so 1999 A.D. is much closer to the present than 730 A.D.

Time Lines

Time lines are a way of illustrating the length of historical time.

- Dates followed by B.C. descend from larger to smaller.
- There is no year 0.
- Dates followed by A.D. rise from smaller to larger.

Look at the time line below.

c. 8000	B.C.	Agriculture is invented in Mesopotamia.
c. 5000	B.C.	Crop irrigation is invented in Mesopotamia.
c. 3100	B.C.	The Egyptians invent an early form of writing.
c. 1800	B.C.	The Babylonians develop multiplication tables.
c. 700	B.C.	The Chinese begin keeping records of comets.
214	B.C.	Construction begins on the Great Wall of China.
27	B.C.	Construction begins on the Roman Pantheon.
<hr/>		
	A.D.	
79	A.D.	Mount Vesuvius erupts and buries Pompeii.
868	A.D.	The first printed book is made in China.
c. 1348	A.D.	Bubonic plague sweeps through Europe and Asia.
1775	A.D.	The American Revolution begins.
1969	A.D.	The first manned moon landing occurs.

Time and Again

Creating a Time Line

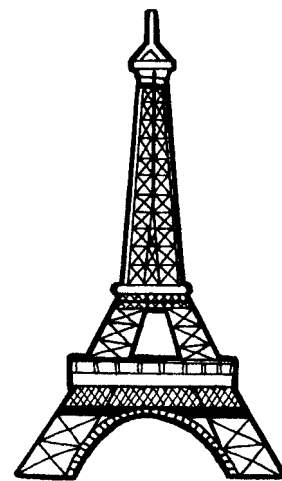
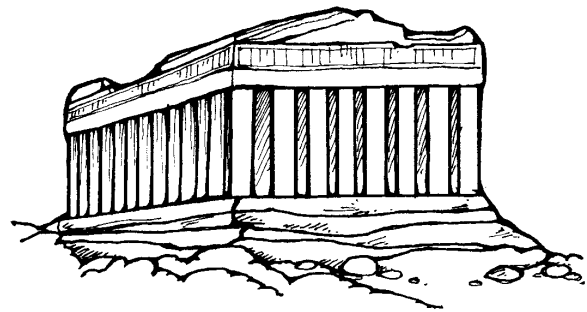
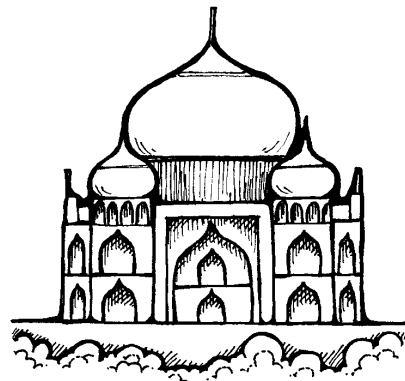
Remember the facts below.

- The dates followed by B.C. come before A.D.
- The highest numbers listed as B.C. come first.
- The lowest numbers listed as B.C. come just before the beginning of A.D.
- Numbers listed as A.D. go from lowest to highest.

Directions: Study the Facts and Reminders page for this unit. Use this page to complete page 85 of this unit. (Note: All dates listed are beginning dates.)

World Monuments

- | | | |
|---------|------|----------------------------------|
| 50 | A.D. | Aztec Pyramid of the Sun |
| 1150 | A.D. | Angkor Wat Temples |
| c. 283 | B.C. | Lighthouse at Alexandria |
| c. 730 | A.D. | Jaguar Temple at Tikal |
| 1931 | A.D. | Empire State Building |
| c. 214 | B.C. | Great Wall of China |
| c. 1675 | A.D. | New St. Paul's Cathedral |
| c. 600 | B.C. | Hanging Gardens of Babylon |
| 27 | B.C. | The Roman Pantheon |
| 1889 | A.D. | Eiffel Tower |
| c. 1333 | B.C. | Tutankhamun's Tomb |
| 1339 | A.D. | The Kremlin in Moscow |
| c. 447 | B.C. | Parthenon at Athens |
| 1884 | A.D. | Statue of Liberty |
| c. 2580 | B.C. | Pyramids at Giza |
| 1163 | A.D. | Cathedral of Notre Dame |
| c. 2600 | B.C. | Ziggurat at Ur |
| c. 550 | B.C. | Temple of Artemis/Ephesus |
| 80 | A.D. | Colosseum in Rome |
| c. 960 | B.C. | Solomon's Temple |
| 1629 | A.D. | Taj Mahal |
| c. 353 | B.C. | Mausoleum at Halicarnassus |
| 1703 | A.D. | Buckingham Palace |
| c. 292 | B.C. | Colossus of Rhodes |
| 1599 | A.D. | Globe Theater in London |
| c. 2750 | B.C. | Stonehenge |
| 1662 | A.D. | Palace at Versailles |
| 150 | B.C. | The Great Stupa at Sanchi, India |
| c. 2550 | B.C. | The Great Sphinx |
| 1067 | A.D. | Tower of London |
| c. 456 | B.C. | Statue of Zeus |



Time and Again

Working with Time Lines

- | Year | Inventions and Discoveries |
|--------------|--|
| c. 1608 A.D. | Hans Lippershey of Holland built the first telescope. |
| c. 644 A.D. | The windmill was developed in Iran. |
| c. 1800 B.C. | The Babylonians developed multiplication tables. |
| c. 1280 A.D. | Spectacles were developed in Italy. |
| c. 300 A.D. | Stirrups for riding horses were developed in China. |
| c. 800 B.C. | Coins were created in the Near East. |
| 1565 A.D. | Pencils were designed by Gesner in Switzerland. |
| c. 3500 B.C. | The potter's wheel was developed in Mesopotamia. |
| c. 600 A.D. | Chess was invented in India. |
| c. 1000 B.C. | Kites were developed in China. |
| c. 1000 A.D. | Gunpowder was invented in China. |
| c. 3000 B.C. | The abacus was developed in China or Babylonia. |
| c. 700 B.C. | The Chinese began keeping records of comets. |
| c. 1665 A.D. | Isaac Newton discovered the universal law of gravitation. |
| 1879 A.D. | Thomas Edison invented the first practical light bulb. |
| c. 3500 B.C. | The plow was invented in Mesopotamia. |
| 1903 A.D. | The Wright brothers built and flew the first heavier-than-air plane. |
| c. 1000 B.C. | Scissors were invented in Europe and Asia. |
| 1865 A.D. | Louis Pasteur developed the germ theory of disease. |
| c. 5000 B.C. | Crop irrigation was invented in Mesopotamia. |
| 1514 A.D. | Plus (+) and minus (−) signs were first used. |
| c. 236 B.C. | Archimedes invented the Archimedean screw for lifting water from lower levels. |
| c. 3100 B.C. | The Egyptians invented an early form of writing. |
| 1925 A.D. | Television was invented by J. Baird of Scotland. |
| c. 3200 B.C. | The Egyptians invented a form of ink. |
| c. 1040 A.D. | Movable type for printing books was invented in China. |
| 868 A.D. | The first printed book was made in China. |
| c. 8000 B.C. | Agriculture was invented in Mesopotamia. |

Directions: Place the Inventions and Discoveries listed above in the correct order from earliest to present day on a chart. Compute how many years ago each invention or discovery occurred. Your chart should look like this:

Year	Inventions and Discoveries	Years Ago
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Answer Key

- Multiples of 10: (10, 20, 30, 40, 50, 60, 70, 80) LCM: (10)
8. Multiples of 3: (3, 6, 9, 12, 15, 18, 21, 24)
Multiples of 4: (4, 8, 12, 16, 20, 24, 28, 32)
Multiples of 6: (6, 12, 18, 24, 30, 36, 42, 48)
LCM: (12)
9. Multiples of 3: (3, 6, 9, 12, 15, 18, 21, 24)
Multiples of 6: (6, 12, 18, 24, 30, 36, 42, 48)
Multiples of 8: (8, 16, 24, 32, 40, 48, 56, 64)
LCM: (24)

Page 78

- | | |
|-------|--------|
| 1. 18 | 9. 8 |
| 2. 36 | 10. 60 |
| 3. 28 | 11. 45 |
| 4. 24 | 12. 30 |
| 5. 20 | 13. 48 |
| 6. 12 | 14. 60 |
| 7. 30 | 15. 72 |
| 8. 9 | |

Page 81

Tetrahedron

faces: 4 edges: 6

vertices: 4

Hexahedron

faces: 6 edges: 12

vertices: 8

Octahedron

faces: 8 edges: 12

vertices: 6

Dodecahedron

faces: 12 edges: 30

vertices: 20

Icosahedron

faces: 20 edges: 30

vertices: 12

- 1.–7. Answers will vary depending on the size of model used.

Page 82

Answers will vary depending on the size of model used.

Page 85

The age of the monuments will vary.

- c. 2750 B.C. Stonehenge
c. 2600 B.C. Ziggurat at Ur

- c. 2580 B.C. Pyramids at Giza
c. 2550 B.C. The Great Sphinx
c. 1333 B.C. Tutankhamun's Tomb
c. 960 B.C. Solomon's Temple
c. 600 B.C. Hanging Gardens of Babylon
c. 550 B.C. Temple of Artemis/Ephesus
c. 456 B.C. Statue of Zeus
c. 447 B.C. Parthenon at Athens
c. 353 B.C. Mausoleum at Halicarnassus
c. 292 B.C. Colossus of Rhodes
c. 283 B.C. Lighthouse at Alexandria
c. 214 B.C. Great Wall of China
150 B.C. The Great Stupa at Sanchi, India
27 B.C. The Roman Pantheon
B.C.
A.D.
50 A.D. Aztec Pyramid of the Sun
80 A.D. Colosseum in Rome
c. 730 A.D. Jaguar Temple at Tikal
1067 A.D. Tower of London
1150 A.D. Angkor Wat Temples
1163 A.D. Cathedral of Notre Dame
1339 A.D. The Kremlin in Moscow
1599 A.D. Globe Theater in London
1629 A.D. Taj Majal
1662 A.D. Palace at Versailles
1675 A.D. New St. Paul's Cathedral
1703 A.D.

- Buckingham Palace
1884 A.D. Statue of Liberty
1889 A.D. Eiffel Tower
1931 A.D. Empire State Building

Page 86

The "Years Ago" calculation will depend on the current year.

- c. 8000 B.C. Agriculture was invented in Mesopotamia.
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c. 3500 B.C. The potter's wheel was developed in Mesopotamia.
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- B.C.
A.D.
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1925 A.D. Television was invented by J. Baird of Scotland.