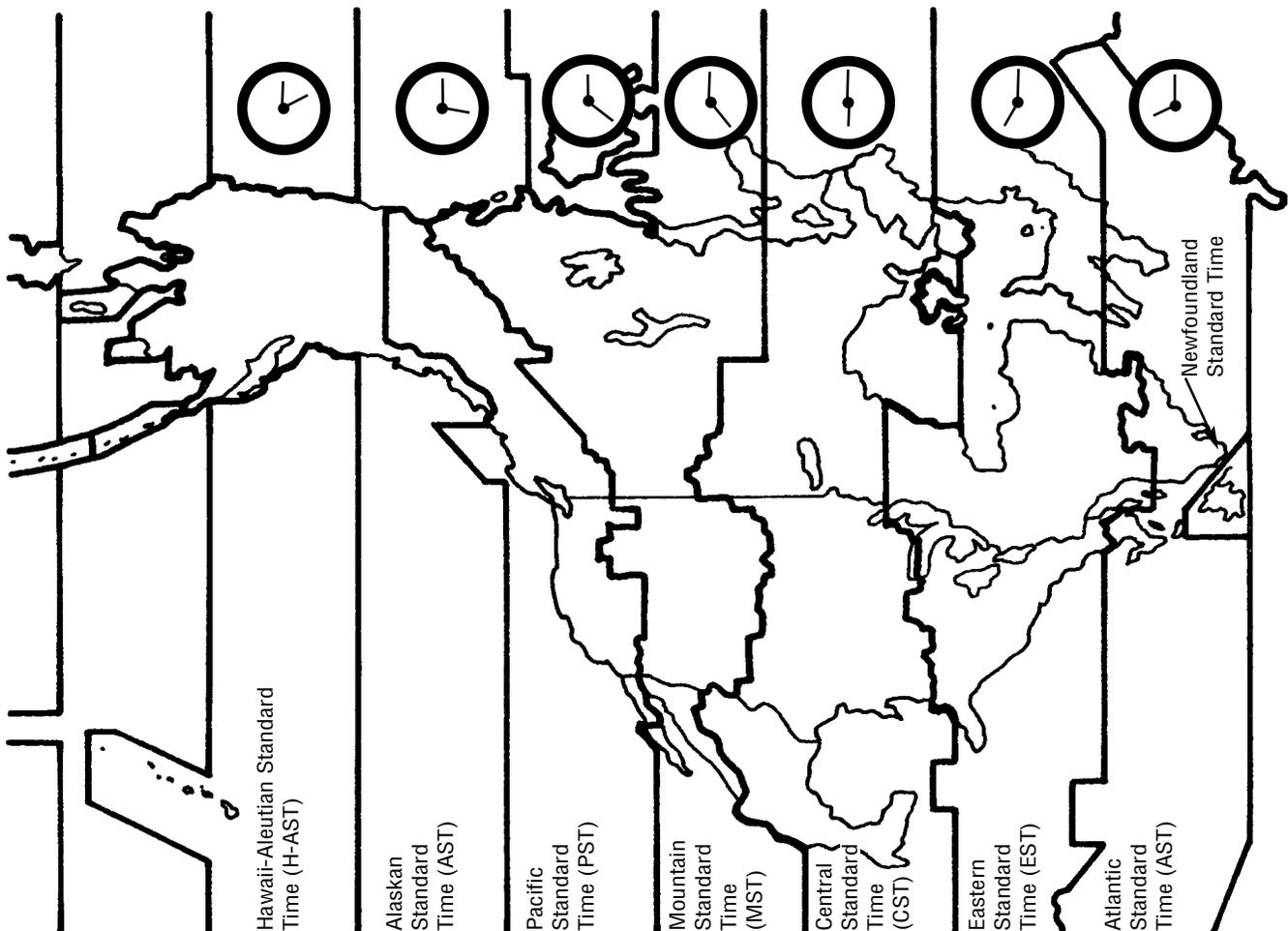


Facts to Know

Time Zones

Time zones were established because, as the Earth rotates on its own axis, different places are experiencing different times of the day, depending on the amount of sunlight that they are exposed to. An international conference was held in 1884 to set up time zones. The Greenwich Observatory in England was chosen as the starting point, and from this point, there would be 12 time zones to the east and 12 to the west. Today, however, there are two half-hour time zones. India, which spans two time zones, has chosen a single time midway between the two times. When it is noon in London, for instance, it is 5:30 P.M. in central India. The central part of Australia has a fractional time zone, too.

Each zone is one hour different from those on either side of it. Across the oceans, the time zone borders run mostly north and south. Across land, the borders follow political boundaries—the borders of nations and states, mainly. There are six time zones total in the United States. As you travel west, subtract one hour. As you travel east, add one hour.



Time Lines

A time line helps to chronologically place people and events throughout history. A time line can provide information about different eras in history and shed light on what events, inventions, leaders, etc., shaped different periods in history.

Directions: Use the time zone map on page 16 to answer the questions.

1. Sarah in Chicago (CST) is in the lunch line at her school at 12:00 P.M. Lisa in Hawaii (H-AST) is just getting on the morning bus. What time is it in Hawaii? _____
2. Duane in Nome, Alaska, looks at his clock. It says 10:00 A.M. (AST). He calls his cousin Henry in Des Moines, Iowa (CST) and is told, "Henry's not back from lunch yet." What time is it in Des Moines? _____
3. Brian in Brooklyn, New York (EST) makes a call at 2:00 P.M. He calls Peter in Denver, Colorado (MST). Peter has his answering machine on. He calls Brian back in an hour. What time is it at Peter's house when he calls? _____
4. Andy lives in St. Louis, Missouri (CST). He turns on the TV at 11:30 A.M. and sees a program that shows people having breakfast on a beach in Maui (H-AST). What time is it in Maui? _____
5. It's 4 P.M. in Rifle, Colorado (MST). People in Cape May, New Jersey (EST) are just finishing dinner. What time is it in Cape May? _____
6. Lupe and Gloria leave Chicago (CST) at 10 A.M. for a wedding scheduled for 2:00 P.M. in Grand Rapids, Michigan. The trip takes 3 hours. As they arrive at the church, their mother comes hurrying out. "Where have you been?" she says. "The ceremony is starting!" In what time zone is Grand Rapids? _____
7. A flight leaves San Francisco, California (PST) at 11:00 A.M. It arrives at O'Hare International Airport in Chicago (CST) at 5:00 P.M. Chicago time. How long was the flight? _____
8. A flight leaves Denver International Airport (MST) at 10:30 A.M. It lands in Houston, Texas (CST) at 1:00 P.M. It is delayed on the ground an hour. It arrives in Chicago (CST) at 6:00 P.M. What was the total elapsed time of the flight from Denver to Chicago? _____
9. Martin in Philadelphia, Pennsylvania (EST), is watching television at noon. He sees an ad that says the movie *Subatomic Worlds* will be on in one hour. He calls his brother Michael in Santa Fe, New Mexico (MST) and says, "You gotta watch this movie, man, it's terrific." Michael says, "Yeah, right, but things come on an hour earlier here than there." What time should Michael turn on the TV for *Subatomic Worlds*? _____
10. Juanita was visiting Sylvia in West Palm Beach, Florida (EST) on New Year's Eve 1999. At midnight they called up David and Gilbert in San Diego (PST) and yelled, "Happy New Year!" Gilbert said, "You're in another century already?" What time was it in San Diego? _____
11. On Saturday Luis called his friend Teresa. Luis lives in Vancouver, British Columbia, Canada (PST), while his friend Teresa lives in Montreal, Quebec, Canada (EST). If Luis calls at 7 P.M., what time is it in Montreal where Victoria lives? _____



Answer Key

Pages 6–8

- 6:10
- 10:15
- 12:05
- 1:20
- 6:50
- 7:20
- 8:30
- 11:25
- 6:20
- 6 days 1 hr
- 17 yrs 2 wks
- 1 day 4 hrs
- 2 wks
- 6 hrs
- 5:00
- 1:30
- 2 1/2 hrs
- 12:10
- 12:15 P.M.
- 2:20
- 50 mins
- 1:27
- 12 hrs
- 6 hrs 15 mins
- 5 hrs 45 mins
- 8 hrs
- 7 hrs 15 mins
- 1 hr 35 mins
- 60 mins
- 13 hrs 20 mins
- 4 hrs
- 24 days
- 60 beats per minute
- 7 hrs
- 12 mins
- 48 days
- 5 days
- 36 trips
- 7 hrs
- 15 hrs

Page 11

- 310 wks 1 day
- 572 wks 3 days
- 207 wks 3 days
- 259 wks 4 days
- 103 wks 4 days
- 674 wks
- 3 yrs
- 8 yrs
- 10 yrs
- 9 yrs
- 7 yrs
- 3 yrs

- 1 hr 31 mins
 - 34 mins
 - 25 mins
 - 2 hrs 30 mins
- 2 hrs
 - 30 mins
 - 2 hrs 30 mins
 - 4 hrs
- 30 mins
 - 10 mins
 - 1 hr
 - 1 hr 30 mins
- XV
- XXVII
- LVIII
- CXXI
- CCCXII
- CCXXVIII
- LXXIII
- MCMLXIII
- MCMXCIX
- MCMXL

Page 15

- 2 hrs 45 mins (Buffalo)
- 49 mins (Miami)
- 7:27 A.M.
- 6:05 and 7:42 A.M.
- 5 mins
- 1 hr 37 mins
- 25 mins
- 68 mins (1 hr 8 mins)
- 11:00 A.M.
- 6:45 P.M.
- 14 mins
- 16 mins
- 3 hrs 14 mins
- The 11 A.M. and 3:30 P.M.
- 2 mins
- 15 mins
- 1 min
- 1 min

Page 17

- 8:00 A.M.
- 1:00 P.M.
- 1:00 P.M.
- 7:30 A.M.
- 6:00 P.M.
- EST
- 4 hrs
- 6 1/2 hrs
- 12:00 P.M.
- 9:00 P.M.
- 10:00 P.M.
- 5:00 P.M.