

Understanding World Time Zones

As shown in the map below, there are 24 standard world time zones - one for each hour of the day. The point of reference for the zones is the Prime Meridian, or Standard Time Meridian, which runs through Greenwich, England, at 0° longitude.

Each of the 24 zones is centered around a meridian from which the zone runs 7.5 degrees east and 7.5 degrees west. Thus, the boundaries of the zones are 15 degrees of longitude apart.

In addition, along most of the 180° line of longitude is the International Date Line. Upon crossing this imaginary line, one day is lost or gained, depending upon the direction of travel. Going west across the line, a day is added. Going east across the line, a day is subtracted.

Using the above reading and the map on the other side, answer the following questions.

1. How many time zones are there? **WHY?**
2. Where do the time zones start? What is this line called?
3. When traveling east from Greenwich, is it an hour later or earlier in each time zone?
4. If it is 7 A.M. in Washington, D.C., what time is it in the following cities?
in Beijing, China? _____ in Honolulu, Hawaii? _____
in Moscow, U.S.S.R.? _____ in Los Angeles, California? _____
5. If it is Friday when a traveler leaves Mexico traveling west, what day is it in India?
6. Why do you think the boundaries of the time zones were set up 15° of longitude apart?
7. Why does the International Date Line cross no land?

