

**Longitude/Time Zones Practice**

1. Your time is 2:00 pm, Prime Meridian time is 10:00 am. What is your longitude? 60°E

*later = east*  
 $10\text{am to } 2\text{pm} = 4\text{hrs later} = \text{East}$   
 $4\text{hr} \times \frac{15^\circ}{\text{hour}} = 60^\circ \text{E}$

2. Your time is 9:00 am, Prime Meridian time is 3:00 pm. What is your longitude? 90°W

*early = west*  
 $9\text{am to } 3\text{pm} = 6\text{hrs earlier}$   
 $6\text{hr} \times \frac{15^\circ}{\text{hr}} = 90^\circ \text{W}$

3. Your time is 5:00 pm, Prime Meridian time is 4:00 pm. What is your longitude? 15°E

*- late = east*  
 $4\text{pm to } 5\text{pm} = 1\text{hr} \times \frac{15^\circ}{\text{hr}} = 15^\circ \text{E}$

4. Your time is 9:00 pm, Prime Meridian time is 2:00 pm. What is your longitude? 105°E

*- late east*  
 $2\text{pm to } 9\text{pm} = 7\text{hr} \times \frac{15^\circ}{\text{hr}} = 105^\circ \text{East}$

5. It is 2:00 pm at the Prime Meridian and you are located at 30°W longitude. What time is it where you are? 12pm

$\frac{30^\circ \text{W}}{15^\circ/\text{hr}} = 2\text{hr west (earlier)}$   
 $\frac{2\text{pm}}{- 2\text{hours}} = 12\text{pm}$

6. It is 2:00 pm at the Prime Meridian and you are located at 45°E longitude. What time is it where you are? 5pm

$\frac{45^\circ \text{E}}{15^\circ/\text{hr}} = 3\text{hr east (later)}$   
 $\frac{2\text{pm}}{+ 3\text{hours}} = 5\text{pm}$

7. It is 10:00 am at the Prime Meridian and you are located at 60°W longitude. What time is it where you are? 2pm

$\frac{60^\circ \text{W}}{15^\circ/\text{hr}} = 4\text{hr W} = \text{earlier}$   
 $\frac{10\text{am}}{+ 4\text{hours}} = 2\text{pm}$

8. It is 10:00 am at the Prime Meridian and you are located at 90°E longitude. What time is it where you are? 4pm

$\frac{90^\circ \text{E}}{15^\circ/\text{hr}} = 6\text{hr east} = \text{later}$   
 $\frac{10\text{am}}{+ 6\text{hr}} = 4\text{pm}$