Exercise A7: Solar and Sidereal Days

Student name: _____ Class: _____ Date: _____

Check the box with the correct answer.

Question 1: What is the approximate length of an apparent solar day from June 21, 2010 to June 22, 2010?

☐ **a.** 24 hours 0 minutes 0 seconds

☐ **b.** 24 hours 0 minutes 14 seconds

☐ **c.** 23 hours 30 minutes 0 seconds

☐ **d.** 12 hours 30 minutes 12 seconds

Question 2: What is the approximate length of an apparent solar day from September 21, 2010 to September 22, 2010?

☐ **a.** 24 hours 0 minutes 0 seconds

☐ **b.** 24 hours 0 minutes 14 seconds

☐ **c.** 23 hours 59 minutes 39 seconds

☐ **d.** 23 hours 59 minutes 0 seconds

Question 3: What is the approximate length of a sidereal day from September 21, 2010 to September 22, 2010?

☐ **a.** 24 hours 0 minutes 0 seconds

☐ **b.** 24 hours 0 minutes 14 seconds

☐ **c.** 23 hours 59 minutes 39 seconds

☐ **d.** 23 hours 56 minutes 5 seconds

Question 4: What is the relationship between a mean solar day (which is exactly 24 hours) and a sidereal day?

☐ **a.** A mean solar day is 4 minutes shorter than a sidereal day.

☐ **b.** A mean solar day is 4 minutes longer than a sidereal day.

☐ **c.** The number of solar days in a year is greater than the number of sidereal days.

☐ **d.** Sidereal time is more accurate than mean solar time.

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