

UNIT 7 EXERCISES 11-15

TIME

- 2003B 11. (C) When it is 1:00 PM it is 60 minutes after noon, but Cassandra's watch has recorded only 57 minutes and 36 seconds, that is, 57.6 minutes. Thus when her watch has recorded t minutes since noon, the actual number of minutes passed is

$$\frac{60}{57.6}t = \frac{25}{24}t.$$

In particular, when her watch reads 10:00 PM it has recorded 600 minutes past noon, so the actual number of minutes past noon is

$$\frac{25}{24}(600) = 625,$$

or 10 hours and 25 minutes. Therefore the actual time is 10:25 PM.