Problem 2. Gail has two candles of equal length. The red candle burns at a uniform rate and is fully consumed after 5 hours of burning. The blue candle also burns at a uniform rate. Gail lights both candles at midnight. She notices that at 4:00am one candle is four times as long as the other. Find, to the nearest second, all possible times that the blue candle will be fully consumed.

Solutions due by 10:00am Tuesday, September 6.