

PSC-4011 Ampere-Hour Problems

1. The total charge of a car battery is $90 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for 5.5 hours, on a 15-ampere current), then will he be able to start his car again? Start-up requires a current of 400 amperes for 3 seconds.
2. The total charge of a car battery is $95 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for 8 hours and 36 minutes, on an 11-ampere current), then will he be able to start his car again? Start-up requires a current of 370 amperes for 4 seconds.
3. The total charge of a car battery is $91 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for seven hours and 30 minutes, on a 12-ampere current), then will he be able to start his car again? Start-up requires a current of 500 amperes for 3.5 seconds.
4. The total charge of a car battery is $95 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for seven hours and forty-five minutes, on a 12-ampere current), then will he be able to start his car again? Start-up requires a current of 380 amperes for 3.2 seconds.

5. **The total charge of a car battery is $85 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for six hours and forty minutes, on a 13-ampere current), then will he be able to start his car again? Start-up requires a current of 400 amperes for 3 seconds.**

6. **The total charge of a car battery is $90 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for 5.5 hours, on a 16-ampere current), then will he be able to start his car again? Start-up requires a current of 400 amperes for 3 seconds.**

7. **The total charge of a car battery is $99 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for $5\frac{1}{3}$ hours, on an 18.5-ampere current), then will he be able to start his car again? Start-up requires a current of 600 amperes for 2.5 seconds.**

8. **The total charge of a car battery is $100 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for six hours and ten minutes, on a 16-ampere current), then will he be able to start his car again? Start-up requires a current of 710 amperes for 2.9 seconds.**

9. The total charge of a car battery is $90 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for eight hours, on a 14-ampere current), then will he be able to start his car again? Start-up requires a current of 400 amperes for 3 seconds.
10. The total charge of a car battery is $90 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for 4 and a half hours, on a 20-ampere current), then will he be able to start his car again? Start-up requires a current of 450 amperes for 3 seconds.
11. The total charge of a car battery is $98 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for six and a half hours, on a 15-ampere current), then will he be able to start his car again? Start-up requires a current of 420 amperes for 3.8 seconds.
12. The total charge of a car battery is $86 \text{ A}\cdot\text{h}$. If the driver forgot to turn off his headlights (they were on for four hours and forty-five minutes, on an 18-ampere current), then will he be able to start his car again? Start-up requires a current of 550 amperes for 2.7 seconds.