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### Answers to Lab 3 Questions

1. Minimum time resolution corresponds to a single tick in the count register which increases at the rate of  $16 \text{ Mhz}/(15+1) = 1 \text{ Mhz}$ . 1 Mhz has a period of  $1 \mu\text{s}$ .
2.  $150 \mu\text{s} * (1 \text{ tick}/1 \mu\text{s}) = 150 \text{ mod } 0\text{xffff}+1 = 150$   
 $38000 \mu\text{s} * (1 \text{ tick}/1 \mu\text{s}) = 38000 \text{ mod } 0\text{xffff}+1 = 38000$
3.  $0\text{xffff} + 1 \text{ ticks } (1 \text{ tick}/1 \mu\text{s}) = 65535 \mu\text{s}$