## Applied Algebra

Instructions Please write your name in the upper right-hand corner of the page. Use complete sentences, along with any necessary supporting calculations, to answer the following questions.

1. Find a positive, two-digit integer $n$ such that $\operatorname{both} \operatorname{gcd}(n, 45)=9$ and $\operatorname{gcd}(n, 16)=4$.
2. Find integers $s$ and $t$ such that $6 s+160 t=2$.
