Name: $\square$

## Five Minute Exercise

## Finding a Market Equilibrium

## Given:

Market demand: $Q^{d}=3200-100 * P^{d}$
Market supply: $\mathrm{Q}^{\mathrm{s}}=200 * \mathrm{P}^{\mathrm{s}}$
$\mathrm{P}^{\mathrm{d}}=\mathrm{P}^{\mathrm{s}}+\mathrm{T}$
$\mathrm{P}^{\mathrm{s}}$ is the pre-tax price sellers charge
$T$ is a sales tax equal to $\$ 2$
$\mathrm{P}^{\mathrm{d}}$ is the price buyers pay for the good including the tax

## Determine:

The equilibrium quantity exchanged in the market.

