MATH 1314
Chapter 6.1: Matrix Solutions To Linear Systems

$2X + Y - Z = 2$
$X + 3Y + 2Z = 1$
$X + Y + Z = 2$

$3X + Y + 2Z = 31$
$X + Y + 2Z = 19$
$X + 3Y + 2Z = 25$

$X - Y + Z = -4$

$5X + Y - 2Z = 12$

$2X - 3Y + 4Z = -15$

A rent-a truck company plans to spend $5 million on 200 new vehicles. Each van will cost $20,000, each small truck $25,000, and each large truck $35,000. If the company needs twice as many vans as small trucks, how many of each kind of vehicle should the company buy?