

## MATH 1314

### Chapter 6.2: Inconsistent And Dependent Systems And Their Applications

$$X - Y - 2Z = 2$$

$$2X - 3Y + 6Z = 5$$

$$3X - 4Y + 4Z = 12$$

$$3X - 4Y + 4Z = 7$$

$$X - Y - 2Z = 2$$

$$2X - 3Y + 6Z = 5$$

$$3X + 7Y + 6Z = 26$$

$$X + 2Y + Z = 8$$

The intersections of four one-way streets are shown. To keep traffic moving, the number of cars entering per hour must equal the number of cars leaving per hour.

Write an solve a system of linear equations for this situation.

If construction on 27<sup>th</sup> Avenue limits Z to 50 cars per hour, how many cars per hour must pass between the other intersections to keep traffic flowing?

