

MATH 1314

Chapter 10.2: Inconsistent Systems and Dependent Equations

$$x - y - 2z = 2$$

$$2x - 3y + 6z = 5$$

$$3x - 4y + 4z = 12$$

$$3x - 4y + 4z = 7$$

$$x - y - 2z = 2$$

$$2x - 3y + 6z = 5$$

$$3x + 7y + 6z = 26$$

$$x + 2y + z = 8$$

THE INTERSECTIONS OF 4 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 AND SOLVE THE SITUATION'S SYSTEM OF EQUATIONS.

IF CONSTRUCTION ON 27TH AVENUE LIMITS Z TO 50 CARS
PER HOUR, HOW MANY CARS MUST PASS BETWEEN THE OTHER
INTERSECTIONS TO KEEP TRAFFIC FLOWING?

