

### Gauss Seidal Method

Example:

$$3x + 20y - z = -18$$

$$2x - 3y + 20z = 25$$

$$20x + y - 2z = 17$$

**Diagonally Dominant Form:**

$$20x + y - 2z = 17$$

$$3x + 20y - z = -18$$

$$2x - 3y + 20z = 25$$

$$f1 : x = (17 - y + 2z) / 20$$

$$f2 : y = (-18 - 3x + z) / 20$$

$$f3 : z = (25 - 2x + 3y) / 20$$

X0	Y0	Z0	f1 / x1	f2 / y1	f3 / z1
0	0	0	0.85	-0.9	1.25
0.85	-0.9	1.25	1.02	-0.965	1.03
1.02	-0.965	1.03	1.00125	-1.0015	1.00325
1.00125	-1.0015	1.00325	1.0004	-1.00003	0.99965