DUAL LP

min : 750 y1 + 900 y2 + 450 y3 + 13000 y4 + 12000 y5 + 5000 y6 + 900 y7 + 1200 y8 + 750 y9;

y1 + 20 y4 + y7 + 900 y10 + 450 y11 >= 420;

y1 + 15 y4 + y8 + 900 y10 + 450 y11 >= 360;

y1 + 12 y4 + y9 + 900 y10 + 450 y11 >= 300;

y2 + 20 y5 + y7 - 750 y10 >= 420;

y2 + 15 y5 + y8 - 750 y10 >= 360;

y2 + 12 y5 + y9 - 750 y10 >= 300;

y3 + 20 y6 + y7 - 750 y11 >= 420;

y3 + 15 y6 + y8 - 750 y11 >= 360;

y3 + 12 y6 + y9 - 750 y11 >= 300;

OBJECTIVE FUNCTION

Max: 420 L1 + 360 M1 + 300 S1 + 420 L2 + 360 M2 + 300 S2 + 420 L3 + 360 M3 + 300 S3;

CONSTRAINTS

In according to capacity

L1 + M1 + S1 <= 750;

L2 + M2 + S2 <= 900;

L3 + M3 + S3 <= 450;

In according to square footage

20 L1 + 15 M1 + 12 S1 <= 13000;

20 L2 + 15 M2 + 12 S2 <= 12000;

20 L3 + 15 M3 + 12 S3 <= 5000;

In according to sales

L1 + L2 + L3 <= 900;

M1 + M2 + M3 <= 1200;

S1 + S2 + S3 <= 750;

In accordance of same percentage of capacity

900 L1 + 900 M1 + 900 S1 - 750 L2 - 750 M2 - 750 S2 = 0;

450 L1 + 450 M1 + 450 S1 - 750 L3 - 750 M3 - 750 S3 = 0;