

بسمه تعالی

تمرینات دوره

سازه های فضاکار

الف) تاشه نگاری شبکه های دولایه

با استفاده از نرم افزار Formian 2.2

مدرس: پروفسور هوشیار نوشین

دانشجو:

مجتبی اصغری سرخی

«اردیبهشت ۸۹ دانشگاه شهید باهنر کرمان»

Editory

file name : Example a-

(*) Double Layer Grids(*)

(*) Kerman University Space Structure Examples (*)

(*) Student: Eng.Mojtaba Asghari (*)

m=7;

n=5;

Bala=rinid(m,n+1,2,2)|[0,0,1; 2,0,1]#
rinid(m+1,n,2,2)|[0,0,1; 0,2,1];

Payin=rinid(m-1,n,2,2)|[1,1,0;3,1,0]#
rinid(m,n-1,2,2)|[1,1,0;1,3,0];

jan=rinid(m,n,2,2)|lamid(1,1)|[0,0,1;1,1,0];

Grid1=Bala#Payin#jan;

Clear;

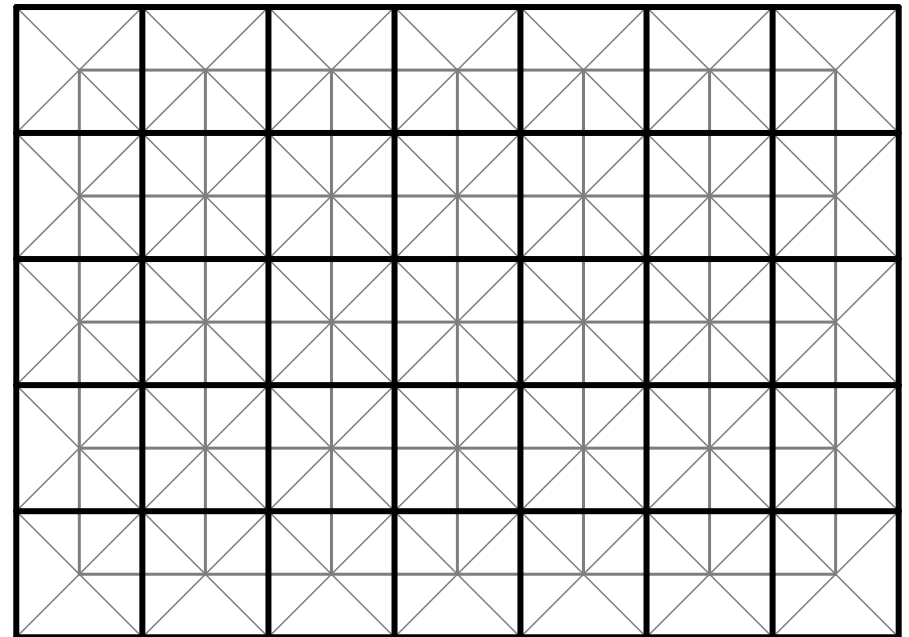
Use &,vm(1),Vs(23),c(1,1),c(4,10),Lw(0.8);
Draw bala;

Use &,vm(1),Vs(23),c(1,5),c(4,10),Lw(0.4);
Draw payin;

Use &,vm(1),Vs(23),c(1,5),c(4,10),Lw(0.2);
Draw jan;

Drawpad

21:30 hrs 19/4/2010



Editory

file name : Example b-

(*) Double Layer Grids(*)

(*) Kerman University Space Structure Examples (*)

(*) Student: Eng.Mojtaba Asghari (*)

m=7;

n=5;

Bala1=rinid(m,n+1,2,2)|[0,0,1;2,0,1];

Bala2=rinid(m+1,n,2,2)|[0,0,1;0,2,1];

bala=bala1#bala2;

Payin=rinid(m-1,n,2,2)|[1,1,0;3,1,0]#

rinid(m,n-1,2,2)|[1,1,0;1,3,0];

jan=rinid(m,n,2,2)|lamid(1,1)|[0,0,1;1,1,0];

Grid1=Bala#Payin#jan;

L=rinid(3,2,4,4)|[3,3,0];

G=Lux(L)|Grid1;

Clear;

Use &,vm(2),c(1,1),c(4,10),Lw(0.8);

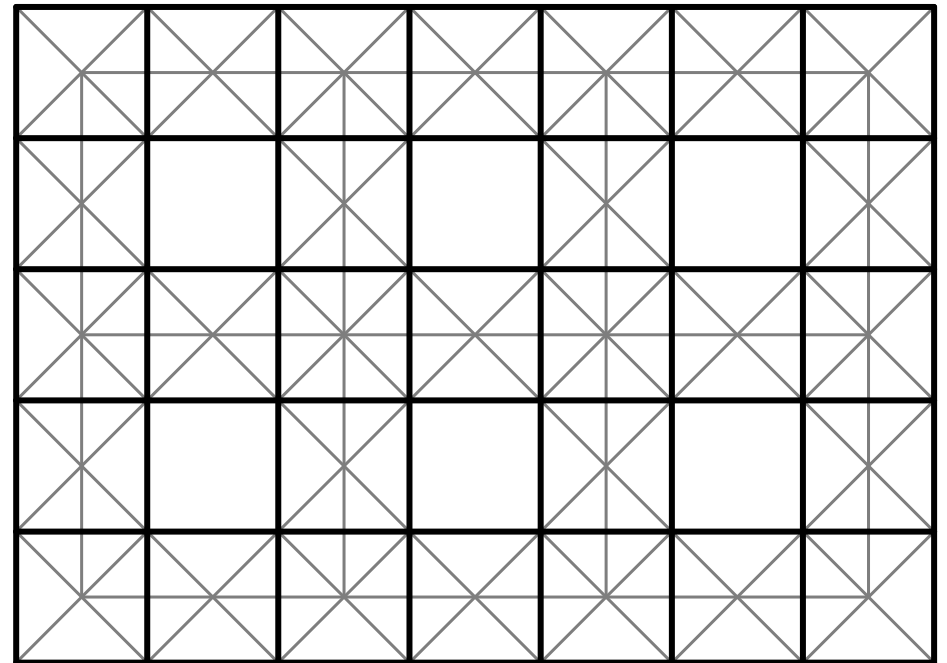
Draw bala;

Use &,vm(2),c(1,5),c(4,10),Lw(0.4);

Draw G;

Drawpad

23:25 hrs 19/4/2010



Editory

file name : Example c-

(*) Double Layer Grids(*)

(*) Kerman University Space Structure Examples (*)

(*) Student: Eng.Mojtaba Asghari (*)

m=7;

n=5;

Bala=rinid(m,n+1,2,2)|[0,0,1; 2,0,1]#
rinid(m+1,n,2,2)|[0,0,1; 0,2,1];

Payin=rinid(m-1,n,2,2)|[1,1,0; 3,1,0]#
rinid(m,n-1,2,2)|[1,1,0; 1,3,0];

jan=rinid(m,n,2,2)|lamid(1,1)|[0,0,1;1,1,0];

Grid1=Bala#Payin#jan;

L1=rinid(1,4,0,2)|[0,0,1];

L2=[5,5,0];

L3=rinid(3,3,2,2)|[10,6,1];

L4=rinid(2,2,2,2)|[11,7,0];

L5=L1#L2#L3#L4;

G=Lux(L5)|Grid1;

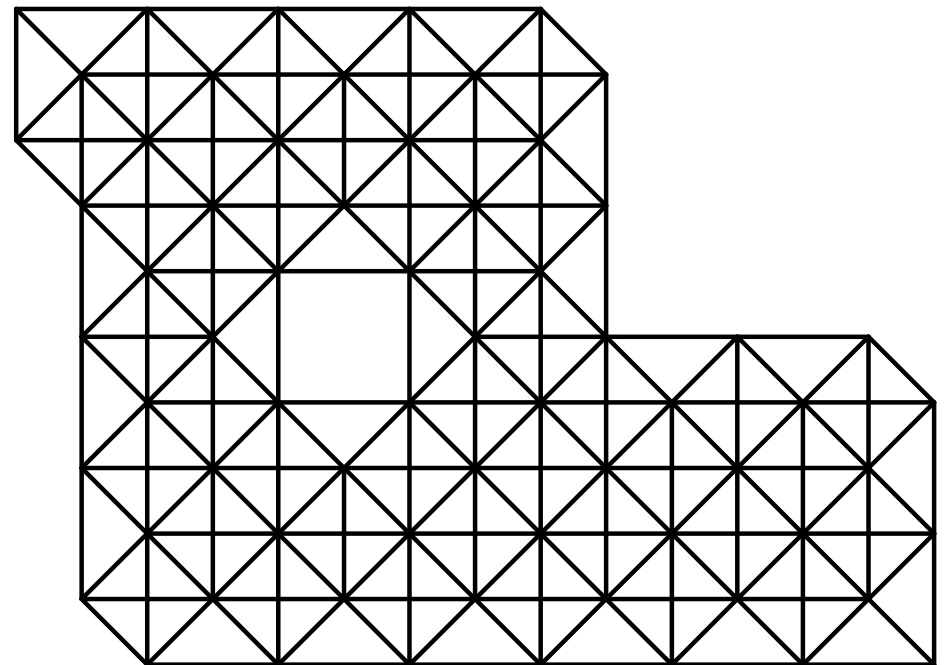
Clear;

Use &,vm(2),c(1,1),c(4,10),Lw(0.6);

Draw G;

Drawpad

21:33 hrs 19/4/2010



(*) Double Layer Grids(*)

(*) Kerman University Space Structure Examples (*)

(*) Student: Eng.Mojtaba Asghari (*)

m=6;

n=4;

Bala=rinid(m,n,2,2)|lamid(1,1)|[1,0,1;0,1,1]#

rinid(m-1,2,2,2*n)|[1,0,1; 3,0,1]#

rinid(2,n-1,2*m,2)|[0,1,1; 0,3,1];

Payin=rinid(2*m-2,2*n-1,1,1)|[1,1,0; 2,1,0]#

rinid(2*m-1,2*n-2,1,1)|[1,1,0; 1,2,0]#

rinid(2,n,2*m-1,2)|[0,1,0; 1,1,0]#

rinid(m,2,2,2*n-1)|[1,0,0; 1,1,0];

Jan=rinid(m-1,n-1,2,2)|lamid(2,2)|[1,1,0; 2,2,0];

Grid=Bala#payin#jan;

Clear;

Use &,vm(1),Vs(23),c(1,1),c(4,10),Lw(0.8);

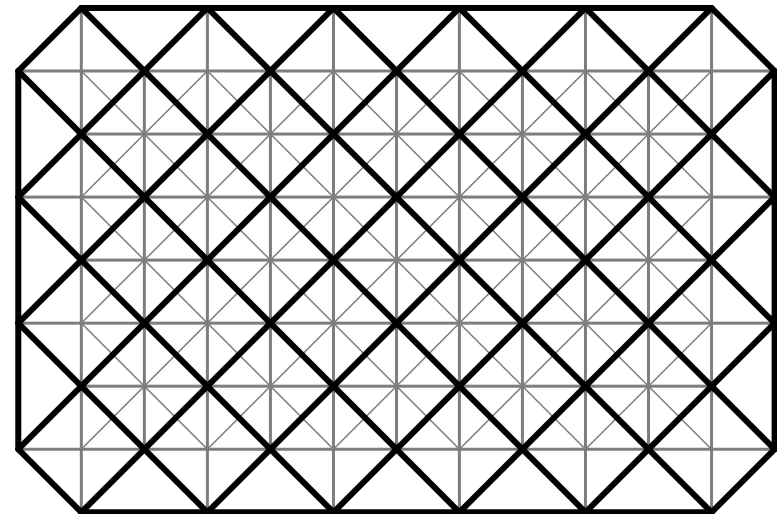
Draw bala;

Use &,vm(1),Vs(23),c(1,5),c(4,10),Lw(0.4);

Draw payin;

Use &,vm(1),Vs(23),c(1,5),c(4,10),Lw(0.2);

Draw jan;



(*) Double Layer Grids(*)

(*) Kerman University Space Structure Examples (*)

(*) Student: Eng.Mojtaba Asghari (*)

m=6;

n=4;

Bala=rinid(m,n,2,2)|lamid(1,1)|[1,0,1; 0,1,1]#

rinid(m-1,2,2,2*n)|[1,0,1; 3,0,1]#

rinid(2,n-1,2*m,2)|[0,1,1; 0,3,1];

Payin=rinid(2*m-2,2*n-1,1,1)|[1,1,0; 2,1,0]#

rinid(2*m-1,2*n-2,1,1)|[1,1,0; 1,2,0]#

rinid(2,n,2*m-1,2)|[0,1,0; 1,1,0]#

rinid(m,2,2,2*n-1)|[1,0,0; 1,1,0];

Jan=rinid(m-1,n-1,2,2)|lamid(2,2)|[1,1,0; 2,2,0];

Grid=Bala#payin#jan;

L=rinid(2,2,4,4)|[4,2,0]#

rinid(3,1,4,0)|[2,4,0];

G=Lux(L)|Grid;

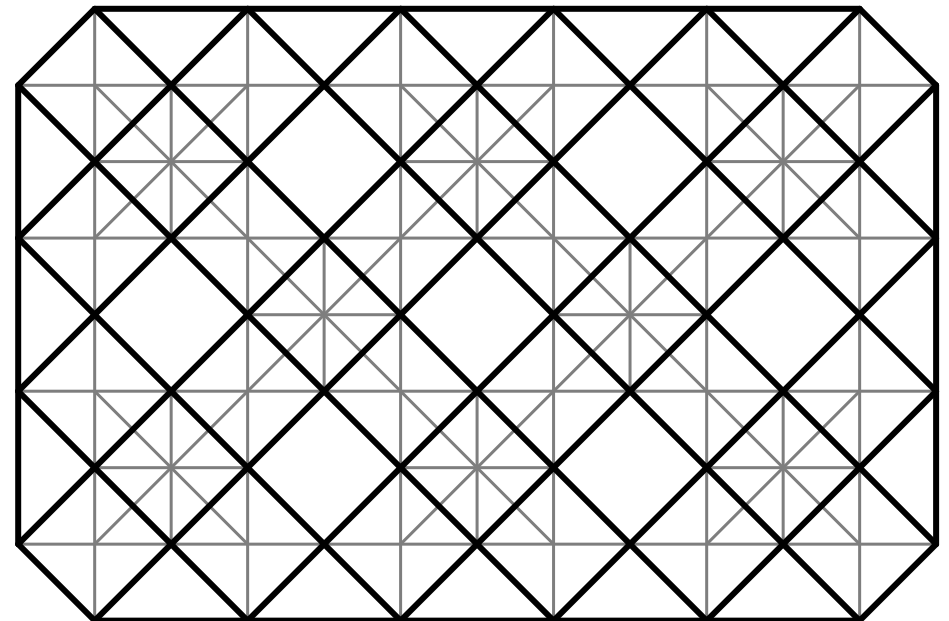
Clear;

Use &,vm(2),c(1,1),c(4,10),Lw(0.8);

Draw bala;

Use &,vm(2),c(1,5),c(4,10),Lw(0.4);

Draw G;



(*) Double Layer Grids(*)

(*) Kerman University Space Structure Examples (*)

(*) Student: Eng.Mojtaba Asghari (*)

S3=sqrt(3);

S4=0.5*S3;

Bala=rinid(3,6,3,S3)|[2,0,1; 3,0,1]#

rinid(4,5,3,S3)|[0.5,S4,1; 1.5,S4,1]#

rinid(3,5,3,S3)|lamid(2.5,S4)|[2,0,1; 1.5,S4,1]#

rin(2,4,S3)|lamid(5.5,S3)|[0,S3,1; 0.5,S4,1];

Payin=rinid(4,3,3,S3)|[1,2*S3,0; 1,S3,0]#

rinid(3,4,3,S3)|[2.5,3*S4,0; 2.5,S4,0]#

rinid(3,4,3,S3)|lamid(2.5,S3)|[1,S3,0; 2.5,S4,0];

Jan=rinid(4,4,3,S3)|lam(1,1)|[0,S3,1; 1,S3,0]#

rinid(3,5,3,S3)|lam(1,2.5)|[1.5,S4,1; 2.5,S4,0]#

rinid(4,4,3,S3)|lamid(1,S3)|[.5,S4,1; 1,S3,0]#

rinid(3,5,3,S3)|lamid(2.5,S4)|[2,0,1; 2.5,S4,0];

clear;

Use &,vm(1),Vs(24),c(1,1),c(4,10),Lw(0.8);

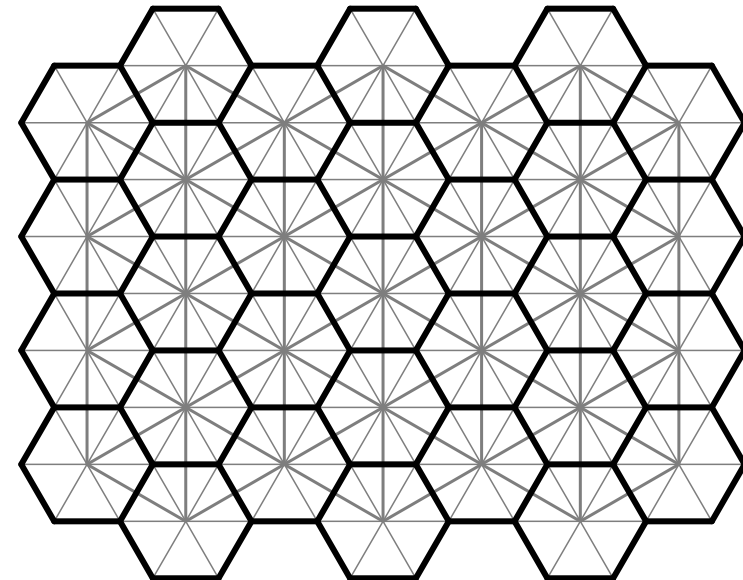
Draw bala;

Use &,vm(1),Vs(24),c(1,5),c(4,10),Lw(0.4);

Draw payin;

Use &,vm(1),Vs(24),c(1,5),c(4,10),Lw(0.2);

Draw jan;



Editory

file name : Example g-

(*) Double Layer Grids(*)

(*) Kerman University Space Structure Examples (*)

(*) Student: Eng.Mojtaba Asghari (*)

S3=sqrt(3);

S4=0.5*S3;

Bala=rinid(3,6,3,S3)|[2,0,1; 3,0,1]#

rinid(4,5,3,S3)|[0.5,S4,1; 1.5,S4,1]#

rinid(3,5,3,S3)|lamid(2.5,S4)|[2,0,1; 1.5,S4,1]#

rin(2,4,S3)|lamid(5.5,S3)|[0,S3,1; 0.5,S4,1];

Payin=rinid(4,3,3,S3)|[1,2*S3,0; 1,S3,0]#

rinid(3,4,3,S3)|[2.5,3*S4,0; 2.5,S4,0]#

rinid(3,4,3,S3)|lamid(2.5,S3)|[1,S3,0; 2.5,S4,0];

Jan=rinid(4,4,3,S3)|lam(1,1)|[0,S3,1; 1,S3,0]#

rinid(3,5,3,S3)|lam(1,2.5)|[1.5,S4,1; 2.5,S4,0]#

rinid(4,4,3,S3)|lamid(1,S3)|[.5,S4,1; 1,S3,0]#

rinid(3,5,3,S3)|lamid(2.5,S4)|[2,0,1; 2.5,S4,0];

Grid1=Bala#Payin#Jan;

L=rinid(3,3,3,4*S4)|[2.5,3*S4,0];

G=Lux(L)|Grid1;

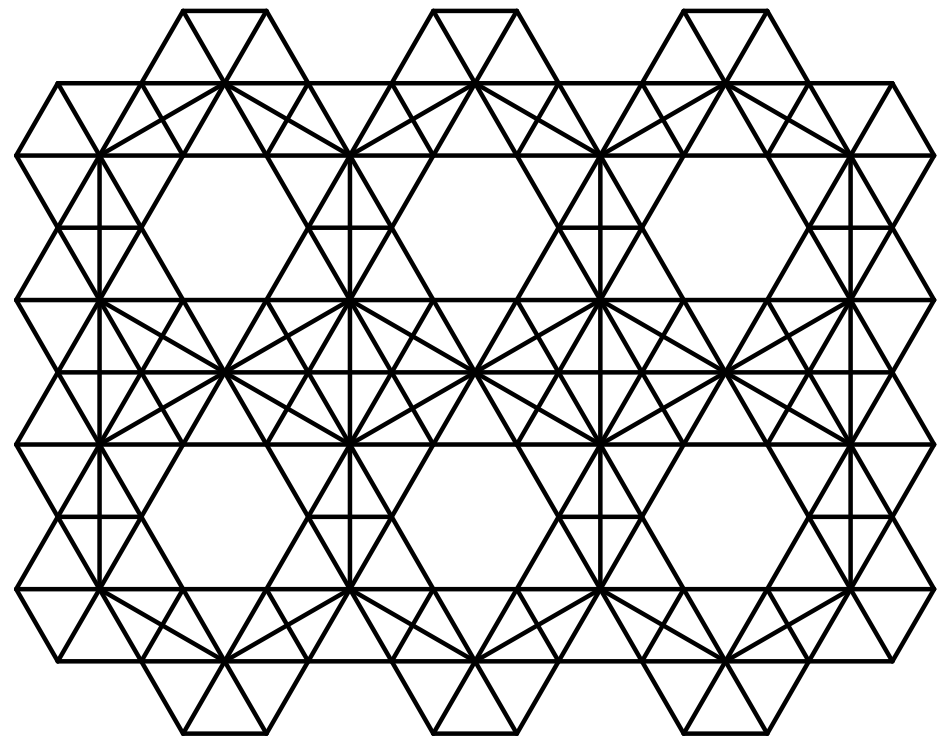
clear;

Use &,vm(2),c(1,1),c(4,10),Lw(0.6);

Draw G;

Drawpad

21:56 hrs 19/4/2010



(*) Double Layer Grids(*)

(*) Kerman University Space Structure Examples (*)

(*) Student: Eng.Mojtaba Asghari (*)

S3=sqrt(3);

S4=0.5*S3;

S5=S3/3;

Bala=rinid(6,4,1,S3)|[0.5,S5,1; 1.5,S5,1]#

rinid(6,3,1,S3)|[0.5,S5,1; 1.5*S3/6,1]#

rinid(6,3,1,S3)|[1.5,S5,1; 1.5*S3/6,1]#

rinid(6,3,1,S3)|[0.5,4*S3/3,1; 1.5*S3/6,1]#

rinid(6,3,1,S3)|[1.5,4*S3/3,1; 1.5*S3/6,1]#

rinid(5,3,1,S3)|[1.5*S3/6,1; 2.5*S3/6,1];

Payin=rinid(7,4,1,S3)|Lamid(0.5 , S4)|[0.5,0,0; 0,S4,0]#

rinid(6,4,1,S3)|[0.5,0,0; 1.5,0,0]#

rinid(7,4,1,S3)|[0,S4,0; 1,S4,0];

L=rinid(7,1,1,0)|[0.5,4*S3,0];

G=Lux(L)|Payin;

jan=rinid(7,4,1,S3)|[0.5,0,0; 0.5,S5,0]#

rinid(7,4,1,S3)|lam(1,0.5)|[0.5,S5,0; 0,S4,0];

clear;

Use &,vm(1),Vs(40),c(1,1),c(4,10),Lw(0.6);

Draw Bala;

Use &,vm(1),Vs(40),c(1,5),c(4,10),Lw(0.4);

Draw G;

Use &,vm(1),Vs(40),c(1,5),c(4,10),Lw(0.3);

Draw jan;

