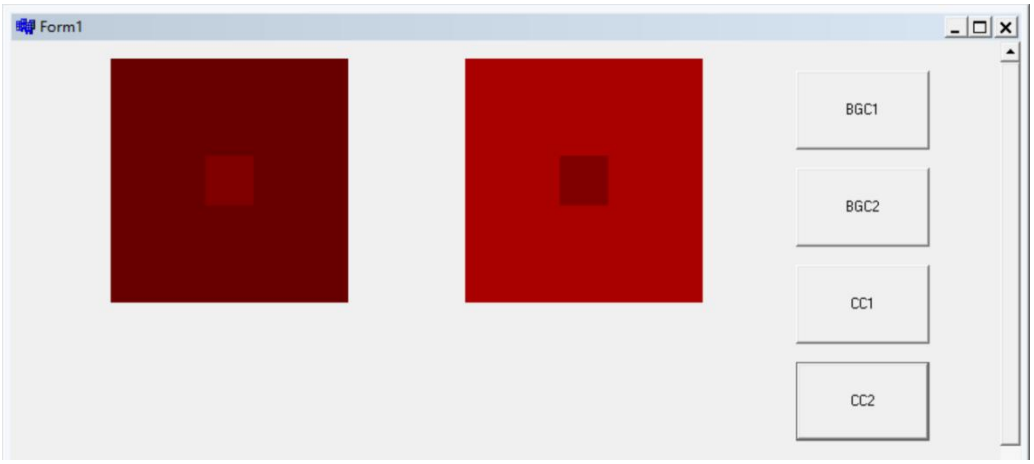
一、執行結果:

必做 1：

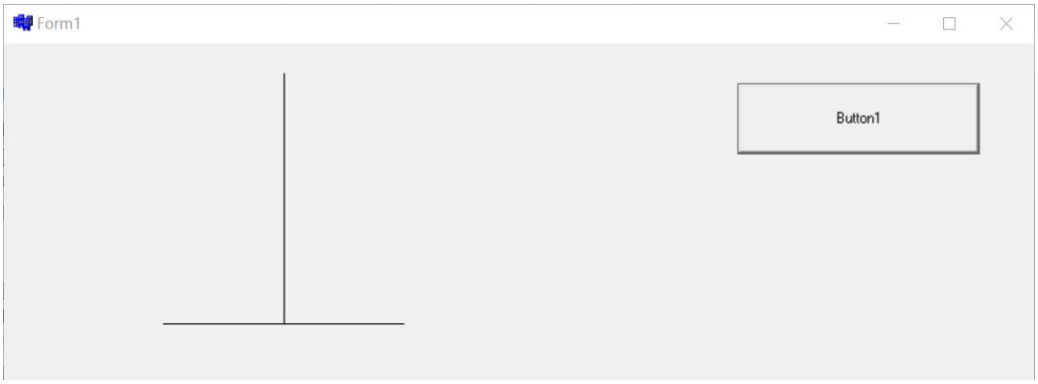


//----------

必做 2：

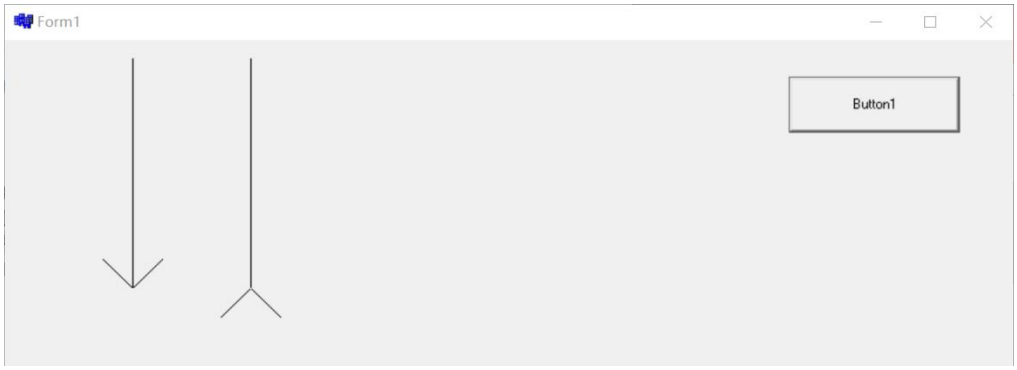
//----------

選做 1：



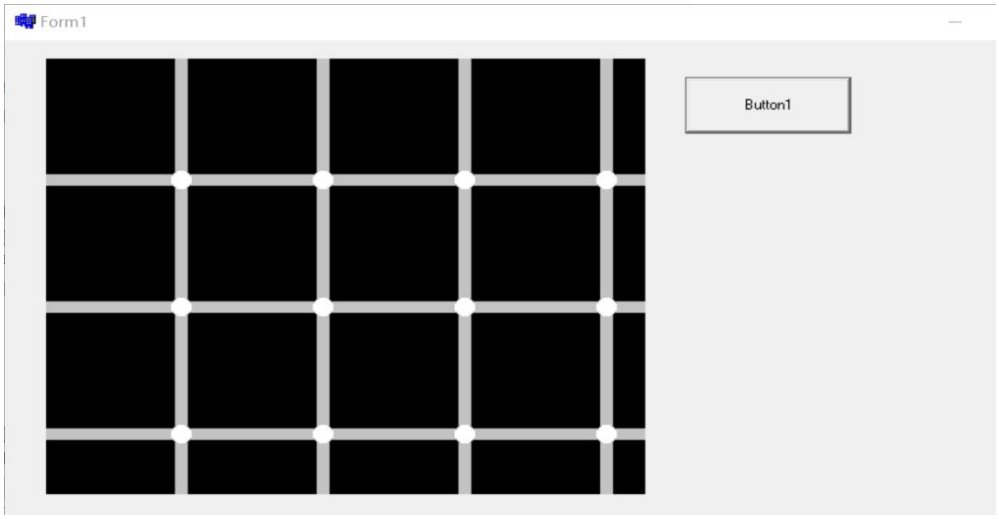
//----------

選做 2：



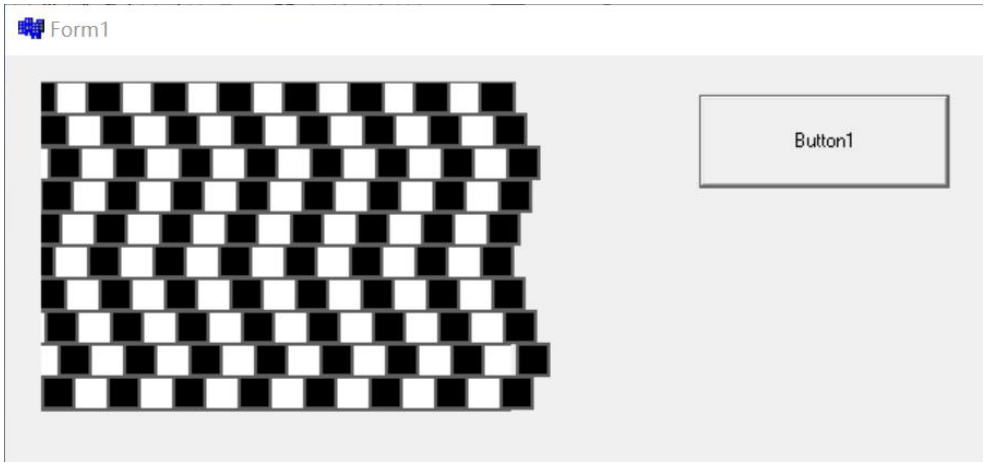
//----------

選做 3：



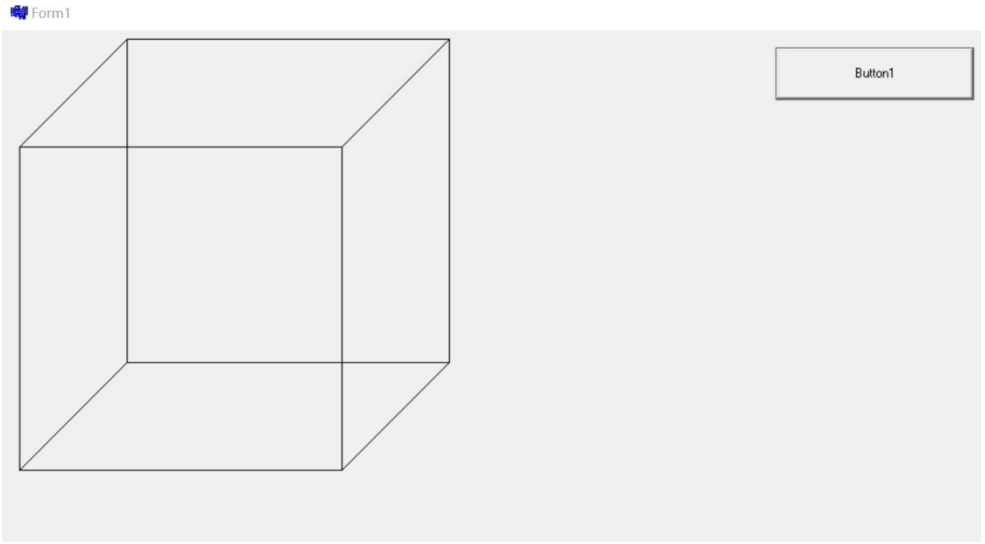
//----------

選做 4：



//---

選做 5：



//---

選做 6：

二、程式碼

必做 1：

```
//---------------------------------------------------------------------------

__fastcall TForm1::TForm1(TComponent* Owner)
        : TForm(Owner)
```

```
{
}
//---------------------------------------------------------------------

void __fastcall TForm1::BGC1Click(TObject *Sender)
{
for(int i=0;i<=200;i++)
{
 for (int j=0;j<=200;j++)
 {
   PaintBox1->Canvas->Pixels[i][j]=105;
 }
}
}
//---------------------------------------------------------------------
void __fastcall TForm1::BGC2Click(TObject *Sender)
{
for(int i=300;i<=500;i++)
{
 for (int j=0;j<=200;j++)
 {
   PaintBox1->Canvas->Pixels[i][j]=169;
 }
}
}
//---------------------------------------------------------------------

void __fastcall TForm1::CC1Click(TObject *Sender)
{
for(int i=80;i<=120;i++)
{
 for (int j=80;j<=120;j++)
 {
   PaintBox1->Canvas->Pixels[i][j]=128;
 }
}
}
//---------------------------------------------------------------------

void __fastcall TForm1::CC2Click(TObject *Sender)
{
for(int i=380;i<=420;i++)
{
 for (int j=80;j<=120;j++)
```

```
 {
   PaintBox1->Canvas->Pixels[i][j]=128;
 }
}
}
//---------------------------------------------------------------------------
```

必做 2：

```
//---------------------------------------------------------------------------
__fastcall TForm1::TForm1(TComponent* Owner)
        : TForm(Owner)
{
}
//---------------------------------------------------------------------------

void __fastcall TForm1::Button1Click(TObject *Sender)
{
for(int i=0;i<=100;i++)
{
 for (int j=0;j<=200;j++)
 {
   PaintBox1->Canvas->Pixels[i][j]=1;
 }
}


for(int i=100;i<=200;i++)
{
 for (int j=0;j<=200;j++)
 {
   PaintBox1->Canvas->Pixels[i][j]=80;
 }
}

for(int i=200;i<=300;i++)
{
 for (int j=0;j<=200;j++)
 {
   PaintBox1->Canvas->Pixels[i][j]=140;
 }
}
```

```
for(int i=300;i<=400;i++)
{
 for (int j=0;j<=200;j++)
 {
   PaintBox1->Canvas->Pixels[i][j]=190;
 }
}

for(int i=400;i<=500;i++)
{
 for (int j=0;j<=200;j++)
 {
   PaintBox1->Canvas->Pixels[i][j]=240;
 }
}

}
//---------------------------------------------------------------------------
```

選做 1：

```
//---------------------------------------------------------------------------
__fastcall TForm1::TForm1(TComponent* Owner)
        : TForm(Owner)
{
}
//---------------------------------------------------------------------------

void __fastcall TForm1::Button1Click(TObject *Sender)
{
   PaintBox1->Canvas->Pen->Color=0;
   PaintBox1->Canvas->MoveTo(200,0);
   PaintBox1->Canvas->LineTo(200,200);
   PaintBox1->Canvas->MoveTo(100,200);
   PaintBox1->Canvas->LineTo(300,200);
}
//---------------------------------------------------------------------------
```

選做 2：

```
//---------------------------------------------------------------------------
```

```
__fastcall TForm1::TForm1(TComponent* Owner)
        : TForm(Owner)
{
}
//---------------------------------------------------------------------

void __fastcall TForm1::Button1Click(TObject *Sender)
{
PaintBox1->Canvas->Pen->Color=0;

PaintBox1->Canvas->MoveTo(100,0);
PaintBox1->Canvas->LineTo(100,200);
PaintBox1->Canvas->MoveTo(75,175);
PaintBox1->Canvas->LineTo(100,200);
PaintBox1->Canvas->MoveTo(125,175);
PaintBox1->Canvas->LineTo(100,200);

PaintBox1->Canvas->MoveTo(200,0);
PaintBox1->Canvas->LineTo(200,200);
PaintBox1->Canvas->MoveTo(175,225);
PaintBox1->Canvas->LineTo(200,200);
PaintBox1->Canvas->MoveTo(225,225);
PaintBox1->Canvas->LineTo(200,200);
}
//---------------------------------------------------------------------
```

選做 3：

```
//---------------------------------------------------------------------
__fastcall TForm1::TForm1(TComponent* Owner)
        : TForm(Owner)
{
}
//---------------------------------------------------------------------

void __fastcall TForm1::Button1Click(TObject *Sender)
{

for(int i=0;i<=700;i++)
{
 for (int j=0;j<=700;j++)
 {
   PaintBox1->Canvas->Pixels[i][j]=RGB(195,195,195);
```

```
 }

PaintBox1->Canvas->Brush->Color=RGB(0,0,0);

}
for(int i=0;i<=5;i++)
{
  PaintBox1->Canvas->Rectangle(0+i*110,0,100+i*110,100);
}
for(int i=0;i<=5;i++)
{
  PaintBox1->Canvas->Rectangle(0+i*110,110,100+i*110,210);
}
for(int i=0;i<=5;i++)
{
  PaintBox1->Canvas->Rectangle(0+i*110,220,100+i*110,320);
}
for(int i=0;i<=5;i++)
{
  PaintBox1->Canvas->Rectangle(0+i*110,330,100+i*110,430);
}
PaintBox1->Canvas->Pen->Color=RGB(255,255,255);
PaintBox1->Canvas->Brush->Color=RGB(255,255,255);
for(int i=0;i<=4;i++)
{
  PaintBox1->Canvas->Ellipse(97+i*110,97,113+i*110,113);
}
for(int i=0;i<=4;i++)
{
  PaintBox1->Canvas->Ellipse(97+i*110,207,113+i*110,223);
}
for(int i=0;i<=4;i++)
{
  PaintBox1->Canvas->Ellipse(97+i*110,317,113+i*110,333);
}
for(int i=0;i<=4;i++)
{
  PaintBox1->Canvas->Ellipse(97+i*110,427,113+i*110,443);
}
}
//---------------------------------------------------------------------------
```

選做 4：

```
//---------------------------------------------------------------------
__fastcall TForm1::TForm1(TComponent* Owner)
        : TForm(Owner)
{
}
//---------------------------------------------------------------------
void __fastcall TForm1::Button1Click(TObject *Sender)
{
for(int i=0;i<=300;i++)
{
 for (int j=0;j<=200;j++)
 {
   PaintBox1->Canvas->Pixels[i][j]=RGB(255,255,255);
 }
}
PaintBox1->Canvas->Pen->Color=RGB(95,95,95);
PaintBox1->Canvas->Brush->Color=0;
PaintBox1->Canvas->Pen->Width = 2;
for(int i=0;i<8;i++)
{
  PaintBox1->Canvas->Rectangle(2+i*40,0,24+i*40,20);
}
for(int i=0;i<8;i++)
{
  PaintBox1->Canvas->Rectangle(11+i*40,20,31+i*40,40);
}
for(int i=0;i<8;i++)
{
  PaintBox1->Canvas->Rectangle(19+i*40,40,39+i*40,60);
}
for(int i=0;i<8;i++)
{
  PaintBox1->Canvas->Rectangle(14+i*40,60,34+i*40,80);
}
for(int i=0;i<8;i++)
{
  PaintBox1->Canvas->Rectangle(7+i*40,80,27+i*40,100);
}
for(int i=0;i<8;i++)
{
  PaintBox1->Canvas->Rectangle(3+i*40,100,23+i*40,120);
}
for(int i=0;i<8;i++)
{
```

```
  PaintBox1->Canvas->Rectangle(10+i*40,120,30+i*40,140);
}
for(int i=0;i<8;i++)
{
  PaintBox1->Canvas->Rectangle(17+i*40,140,37+i*40,160);
}
for(int i=0;i<8;i++)
{
  PaintBox1->Canvas->Rectangle(25+i*40,160,45+i*40,180);
}
for(int i=0;i<8;i++)
{
  PaintBox1->Canvas->Rectangle(15+i*40,180,35+i*40,200);
}

PaintBox1->Canvas->Pen->Color=RGB(95,95,95);
PaintBox1->Canvas->Pen->Width = 2;
PaintBox1->Canvas->MoveTo(0,0);
PaintBox1->Canvas->LineTo(300,0);
PaintBox1->Canvas->MoveTo(0,20);
PaintBox1->Canvas->LineTo(300,20);
PaintBox1->Canvas->MoveTo(0,40);
PaintBox1->Canvas->LineTo(300,40);
PaintBox1->Canvas->MoveTo(0,60);
PaintBox1->Canvas->LineTo(300,60);
PaintBox1->Canvas->MoveTo(0,80);
PaintBox1->Canvas->LineTo(300,80);
PaintBox1->Canvas->MoveTo(0,100);
PaintBox1->Canvas->LineTo(300,100);
PaintBox1->Canvas->MoveTo(0,120);
PaintBox1->Canvas->LineTo(300,120);
PaintBox1->Canvas->MoveTo(0,140);
PaintBox1->Canvas->LineTo(300,140);
PaintBox1->Canvas->MoveTo(0,160);
PaintBox1->Canvas->LineTo(300,160);
PaintBox1->Canvas->MoveTo(0,180);
PaintBox1->Canvas->LineTo(300,180);
PaintBox1->Canvas->MoveTo(0,200);
PaintBox1->Canvas->LineTo(300,200);
}
//---------------------------------------------------------------------------
```

選做 3：

```
//---------------------------------------------------------------------
__fastcall TForm1::TForm1(TComponent* Owner)
        : TForm(Owner)
{
}
//---------------------------------------------------------------------
void __fastcall TForm1::Button1Click(TObject *Sender)
{
PaintBox1->Canvas->MoveTo(100,0);
PaintBox1->Canvas->LineTo(0,100);
PaintBox1->Canvas->LineTo(0,100);
PaintBox1->Canvas->LineTo(0,400);
PaintBox1->Canvas->LineTo(300,400);
PaintBox1->Canvas->LineTo(400,300);
PaintBox1->Canvas->LineTo(400,0);
PaintBox1->Canvas->LineTo(300,100);
PaintBox1->Canvas->LineTo(0,100);
PaintBox1->Canvas->MoveTo(0,400);
PaintBox1->Canvas->LineTo(100,300);
PaintBox1->Canvas->LineTo(100,0);
PaintBox1->Canvas->MoveTo(100,0);
PaintBox1->Canvas->LineTo(400,0);
PaintBox1->Canvas->MoveTo(100,300);
PaintBox1->Canvas->LineTo(400,300);
PaintBox1->Canvas->MoveTo(300,100);
PaintBox1->Canvas->LineTo(300,400);
}
//---------------------------------------------------------------------
```

選做 5：

```
//---------------------------------------------------------------------
__fastcall TForm1::TForm1(TComponent* Owner)
        : TForm(Owner)
{
}
//---------------------------------------------------------------------

void __fastcall TForm1::Button1Click(TObject *Sender)
{
PaintBox1->Canvas->MoveTo(100,50);
PaintBox1->Canvas->LineTo(200,50);//長度 100
PaintBox1->Canvas->MoveTo(100,250);
```

```
PaintBox1->Canvas->LineTo(200,250);//長度 100
PaintBox1->Canvas->MoveTo(100,25);
PaintBox1->Canvas->LineTo(25,300);
PaintBox1->Canvas->MoveTo(200,25);
PaintBox1->Canvas->LineTo(275,300);
}
//---------------------------------------------------------------------------
```