```
program SinCosPlot;

uses
   Crt, Graph, GrWorld;

const
   BGI_PATH = 'D:\BP\BGI';   { Change to path to BGI directory }

var
   gmode, gdriver : Integer;        { Mode & Driver of Display }
   aWorld : WCoordPlane;             { The WCoordPlane object! }
   ch : Char;                   { Temp char for Readkey return }
   x : Real;                 { Used in plotting Sin & Cos Fcns }

begin {=== SinCosPlot ===}
   gdriver := Detect;            { Detect current video driver }
   InitGraph( gdriver, gmode, BGI_PATH );

                    { Create World that takes up entire screen }
   aWorld.Init( -Pi - ( Pi / 4 ), 1.1, Pi + ( Pi / 4 ), -1.1,
                0, 0, GetMaxX, GetMaxY );
                 { Draw Set of Axes with tick marks every Pi/4 }
                 { on the x-axis and every 0.1 on the y-axix.  }
   aWorld.Axes( 0, 0, Pi/4, 0.1, 0, 0, 3, TRUE, WHITE );

                                         { Plot Sin function }
   aWorld.SetColor( LIGHTRED );
   aWorld.OutTextXY( -3, 0.9, 'Sin( x ) = Red' );
   x := -Pi;                                 { Start at -Pi }
   aWorld.MoveTo( x, Sin( x ) );
   x := x + 0.1;
   while ( x < Pi ) do                   { While not at Pi... }
   begin
       aWorld.LineTo( x, Sin( x ) );       { Connect the dots! }
       x := x + 0.1;
   end;
   aWorld.LineTo( Pi, Sin( Pi ) );
   ch := Readkey;               { Pause until user presses key }
                                         { Plot Cos function }
   aWorld.SetColor( LIGHTBLUE );
   aWorld.OutTextXY( -3, 0.8, 'Cos( x ) = Blue' );
   x := -Pi;                                 { Start at -Pi }
   aWorld.MoveTo( x, Cos( x ) );
   x := x + 0.1;
   while ( x < Pi ) do                   { While not at Pi... }
   begin
       aWorld.LineTo( x, Cos( x ) );       { Connect the dots! }
       x := x + 0.1;
   end;
   ch := Readkey;               { Pause until user presses key }
   CloseGraph;                              { Close Up Shop! }

end. {=== SinCosPlot ===}
```