// Illustrating Methods of Geometry

// 2.a. X(Plore)'s built-in graphics features
//      (10 min)

// Establish coordinate ranges:
// LowX, HighX, LowY, HighY.
// (Show on the board.)
// This resets everything else to defaults.

Window(-.5,1,-.5,1)

// I can graph functions:

Graph(x^2,x)

// That's not useful in line drawing.
// Neither is plotting points:

Plot(.5,.5)

// As you saw, moving the cursor is useful.
// But the axes are not.

NoAxis

// Redraw in black to erase.

Color(Black)
Graph(x^2,x)
Color(White)

// Note for-and-aft controls.
// Line drawing x,y to x,y:

Line(1,1,0,0)

// A thicker line:
ThickLine
Line(0,0,1,0)
ThinLine

// Dotted lines of various styles:

LineStyle(1)
Line(1,0,1,1)
LineStyle(0)

// Parametric equations are useful.

ParamG(.5 \cos(t), .5 \sin(t), t=0,1.5\pi)

// Aspect ratio problem
// In practice I choose LowY, LowX, HighY,
// then compute HighX and establish the
// coordinate ranges so that circles come
// out round. I'll demo that later.

// Coloring regions is useful, with cursor.

Fill(CrossX,CrossY,LightGreen,White,2)

// You must consider how your printer software
// renders color!