

Component C. Personalized Project Reference.

Procedure:

i.

```
function graph(a, b, c){
  setScreen("graphScreen");
  graphParabola(getNumber("aInput"), getNumber("bInput"), getNumber("cInput"));

  if (a==0&&c==0){
    for (var i = 1; i<33;i++){
      setProperty("pixel" + i, "icon-color", "green");
    }
    setText("graphText", "The equation is linear and goes through the origin!");
  }
  else if (a==0){
    for (var p = 1; p<33;p++){
      setProperty("pixel" + p, "icon-color", "yellow");
    }
    setText("graphText", "The equation is linear!");
  }
  else {
    setText("graphText", "The equation is quadratic!");
  }
}
```

ii.

```
onEvent ("graphButton", "click", function () {
  compute (getNumber("aInput"), getNumber("bInput"), getNumber("cInput"));
  graph (getNumber("aInput"), getNumber("bInput"), getNumber("cInput"));
});
```

List:

i.

```
function sinCalc(aSin, kSin, bSin, cSin){
  y = [];
  for (var x = 1; x < 33; x++){
    appendItem(y, (aSin*(Math.sin(kSin*(((Math.PI/4)*x)+(Math.PI/2*bSin)))) + cSin));
  }
}
```

ii.

```
function graph1 (){  
  for (var x = 1; x < 33; x++){  
    setPosition("image"+ (x), (10*x)-10, (-10*y[x-1])+225, 10, 10);  
  }  
}
```