

```

//
// ViewController.swift
//
// Created by Patrick Coxall on 2016-10-05.
// This program shows basic UIKit elements working in an iPad
  Playground
// Code calculates area and perimeter of a rectangle
// Modified on October 2017 by Andre
//
//
// Calcualtes cost of pizza from diameter
// modified by Raymond Octavious on october 2017
import UIKit
import Foundation

// comment out line below and one at bottom, to make code work in
  Xcode
import PlaygroundSupport

class ViewController : UIViewController {
    // this is the main view controller, that will show the UIKit
    elements

    // properties
    var instructionLabel : UILabel!
    var diameterLabel : UILabel!
    var diameterTextField : UITextField!
    var calculateButton : UIButton!
    var costLabel : UILabel!

    override func viewDidLoad() {
        // create the UIView

```

```
let view = UIView()
view.backgroundColor = UIColor.white
self.view = view

// create all the UIElements
instructionLabel = UILabel(frame: CGRect(x: 100, y: 100,
    width: 500, height: 50))
instructionLabel.text = "Enter the diameter of the pizza, in
    inches"
view.addSubview(instructionLabel)

diameterLabel = UILabel(frame: CGRect(x: 100, y: 200, width:
    500, height: 50))
diameterLabel.text = "Enter diameter"
view.addSubview(diameterLabel)

diameterTextField = UITextField(frame: CGRect(x: 250, y: 200,
    width: 200, height: 50))
diameterTextField.borderStyle = UITextBorderStyle.roundedRect
diameterTextField.placeholder = "diameter"
view.addSubview(diameterTextField)

calculateButton = UIButton(frame: CGRect(x: 100, y: 360,
    width: 100, height: 50))
calculateButton.setTitle("Calculate", for:
    UIControlState.normal)
calculateButton.setTitleColor(UIColor.blue, for:
    UIControlState.normal)
```

```
calculateButton.addTarget(self, action:
    #selector(calculateCost), for: UIControlEvents.touchUpInside)
view.addSubview(calculateButton)
```

```
costLabel = UILabel(frame: CGRect(x: 100, y: 500, width: 500,
    height: 50))
costLabel.text = nil
view.addSubview(costLabel)
```

```
}
```

```
@objc func calculateCost() {
    // calculate the cost of the pizza
    let LABOURCOST: Double = Double(0.75)
    let RENTCOST: Double = Double(1.00)
    let MATERIALCOST: Double = Double(0.50)
    let HST: Double = Double(0.13)

    let diameter : Double = Double(diameterTextField.text!)

    var subTotal: Double = Double(LABOURCOST + RENTCOST +
        (MATERIALCOST * diameter) )
    var cost: Double = Double(subTotal+(subTotal * HST))

    let numberOfPlaces = 2.0
    let multiplier = pow(10.0, numberOfPlaces)

    costLabel.text = "The price is: $\((round(cost*multiplier)/
        multiplier) )."
```

```
}
```

```
// this is for when code is moved to Xcode, the Status bar will be  
removed
```

```
override var prefersStatusBarHidden: Bool {  
    return true
```

```
}
```

```
}
```

```
// need to also comment this out to make work in Xcode
```

```
PlaygroundPage.current.liveView = ViewController()
```