

---

## Region Plots final

```
In[45]:= costC = 0.7;  
In[56]:= lineStyle = {Thick, Gray, Dashed};  
         line1 = Line[{{costC, 0}, {costC, 1}}];
```

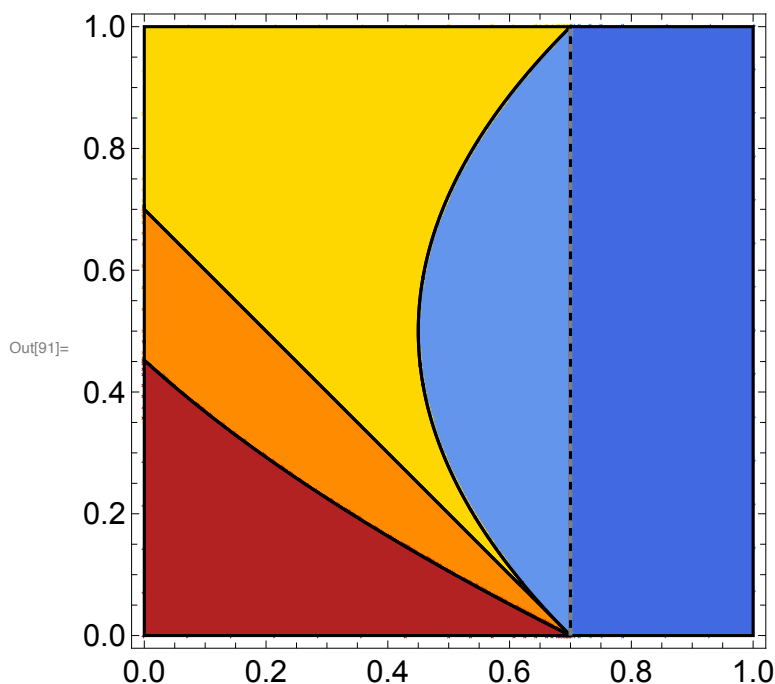
### SD alone

```
In[82]:= Pnn[e_] := -1 - e;  
In[83]:= Pnc[x_, e_] := -1 × (1 - x) - e;  
In[84]:= Pcn[x_] := -1 × (1 - x) - costC;  
In[85]:= Pcc[x_] := -1 × (1 - x) × (1 - x) - costC;
```

```

In[91]:= RegionPlot[
  {Pcc[x] > Pcn[x] > Pnc[x, e] > Pnn[e],
  Pcc[x] > Pnc[x, e] > Pcn[x] > Pnn[e],
  Pnc[x, e] > Pcc[x] > Pcn[x] > Pnn[e],
  Pnc[x, e] > Pcc[x] > Pnn[e] > Pcn[x],
  Pnc[x, e] > Pnn[e] > Pcc[x] > Pcn[x]
  },
  {e, 0, 1}, {x, 0, 1},
  FrameTicksStyle → Directive[Black, 16],
  MaxRecursion → 8,
  PlotPoints → {Automatic, {{1.6, 0}}},
  (*PlotLegends → "Expressions",*)
  BoundaryStyle → Black,
  PlotStyle → {
    ColorData["HTML", "RoyalBlue"],
    ColorData["HTML", "CornflowerBlue"],
    ColorData["HTML", "Gold"],
    ColorData["HTML", "DarkOrange"],
    ColorData["HTML", "Firebrick"]},
  Epilog → {Directive[lineStyle], line1}
]

```



```

In[ ]:= ColorData["HTML", "ColorRules"]
        ColorData["HTML", "CornflowerBlue"]

```

Out[ ]:=

SD alone + IP

```

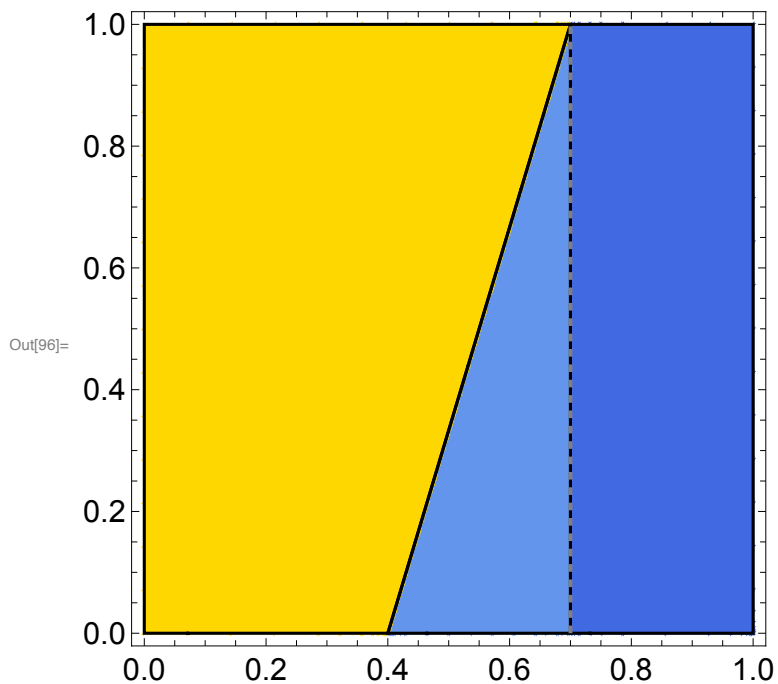
In[92]:= Pnn[e_] := -1;

```

```

In[93]:= Pnc[x_, e_] := -1 × (1 - x) - e x;
In[94]:= Pcn[x_] := -1 × (1 - x) - costC x;
In[95]:= Pcc[x_] := -1 (1 - x)2 - costC (1 - (1 - x)2);
In[96]:= RegionPlot[
  {Pcc[x] > Pcn[x] > Pnc[x, e] > Pnn[e],
   Pcc[x] > Pnc[x, e] > Pcn[x] > Pnn[e],
   Pcc[x] > Pnc[x, e] > Pnn[e] > Pcn[x],
   Pnc[x, e] > Pcc[x] > Pcn[x] > Pnn[e],
   Pnc[x, e] > Pcc[x] > Pnn[e] > Pcn[x]
  },
  {e, 0, 1}, {x, 0, 1},
  FrameTicksStyle → Directive[Black, 16],
  MaxRecursion → 8,
  PlotPoints → {Automatic, {{1.6, 0}}},
  (*PlotLegends → "Expressions",*)
  BoundaryStyle → Black,
  PlotStyle → {
    ColorData["HTML", "RoyalBlue"],
    ColorData["HTML", "CornflowerBlue"],
    ColorData["HTML", "ForestGreen"],
    ColorData["HTML", "Gold"],
    ColorData["HTML", "DarkOrange"]},
  Epilog → {Directive[lineStyle], line1}
]

```



## TTI alone

```
In[97]:= Pnn[e_] := -1 - e;
```

```
In[98]:= Pnc[x_, e_] := -1 × (1 - x) - e;
```

```
In[99]:= Pcn[x_] := -1 - costC;
```

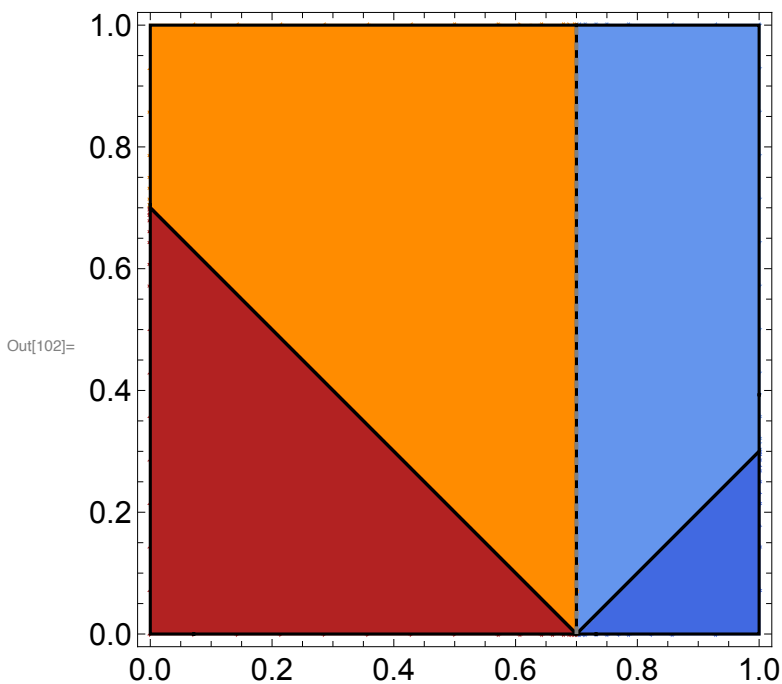
```
In[100]:= Pcc[x_] := -1 × (1 - x) - costC;
```

```

In[102]:= RegionPlot[
{
  Pcc[x] > Pcn[x] > Pnc[x, e] > Pnn[e],
  Pcc[x] > Pnc[x, e] > Pcn[x] > Pnn[e],
  Pnc[x, e] > Pcc[x] > Pnn[e] > Pcn[x],
  Pnc[x, e] > Pnn[e] > Pcc[x] > Pcn[x],

},
{e, 0, 1}, {x, 0, 1},
FrameTicksStyle → Directive[Black, 16],
MaxRecursion → 8,
PlotPoints → {Automatic, {{1.6, 0}}},
(*PlotLegends → "Expressions",*)
BoundaryStyle → Black,
PlotStyle → {
  ColorData["HTML", "RoyalBlue"],
  ColorData["HTML", "CornflowerBlue"],
  ColorData["HTML", "DarkOrange"],
  ColorData["HTML", "Firebrick"]},
Epilog → {Directive[{Thick, Gray, Dashed}], line1}
]

```



## TTI alone + IP

```

In[103]:= Pnn[e_] := -1 - e + e;
(*dummy e just to have this in a function of e for Region Plot to work*)

```

```

In[104]:= Pnc[x_, e_] := -1 × (1 - x) - e x;

In[105]:= Pcn[x_] := -1 - x + x; (* same trick here *)

In[106]:= Pcc[x_] := -1 × (1 - x) - costC x;

In[107]:= RegionPlot[
  {
    Pcc[x] > Pnc[x, e] > Pcn[x],
    Pnc[x, e] > Pcc[x] > Pcn[x],
  },
  {e, 0, 1}, {x, 0, 1},
  FrameTicksStyle → Directive[Black, 16],
  MaxRecursion → 8,
  PlotPoints → {Automatic, {{1.6, 0}}},
  (*PlotLegends → "Expressions",*)
  BoundaryStyle → Black,
  PlotStyle → {
    ColorData["HTML", "CornflowerBlue"],
    ColorData["HTML", "DarkOrange"]},
  Epilog → {Directive[{Thick, Gray, Dashed}], line1}
]

```

