In[172]:=
```
(*Assume that you are trying to choose between two projects,
 one that genearate stream of payments p1, and the second that
  generates a stream of payments p2.  The payments (over 4 years) are:*)
p1 = {50, 50, 50, 50};
p2 = {25, 25, 75, 85};
```

In[174]:=
```
(*In order to find the present discouted value of each stream,
 we discount each term for the appropriate number of years,
 then add up all of the discounted values.  Thus,
 for each stream of payments, the present discounted value would be:*)
Clear[r]
pvp1 = Sum[p1[[i]] / ( (1 + r) ^ i), {i, 1, Length[p1]}]
pvp2 = Sum[p2[[i]] / ( (1 + r) ^ i), {i, 1, Length[p2]}]
```

Out[175]= $\frac{50}{(1+r)^4} + \frac{50}{(1+r)^3} + \frac{50}{(1+r)^2} + \frac{50}{1+r}$

Out[176]= $\frac{85}{(1+r)^4} + \frac{75}{(1+r)^3} + \frac{25}{(1+r)^2} + \frac{25}{1+r}$

In[177]:=
```
(*With a relatively high discount rate,
 project 1 would be prefered  Can you explain why this is the case?*)
r = 0.10;
pvp1
pvp2
```

Out[178]= 158.493

Out[179]= 157.793

In[180]:=
```
(*With a relatively low discount rate,
 project two would be prefered.  Can you explain this as well?*)
r = 0.05;
pvp1
pvp2
```

Out[181]= 177.298

Out[182]= 181.203

In[183]:=
```
(*Notice that at a zero discount rate, project two would always be prefered,
 as the total of the stream of payments is larger.*)
r = 0;
pvp1
pvp2
```

Out[184]= 200

Out[185]= 210