***Length* of a curve ** is given by the formula:



If , then



***Iff***  satisfies these 2 conditions:

1. 
2. 

***Proof***







*We need to combined to a perfect square* 

* If 

 

* Let 

 







 ***√***

***Example***

Find the length of the graph of 

***Solution***

|  |  |
| --- | --- |
|  | 1. ***√*** 2. ***√*** |
| ***Example*** |

If , then



***Iff***  satisfies these 2 conditions:

1. 
2. 

***Proof***







* If 

 

* Let 

 





***Example***



