Polar 2

 can be changed to by using

 The slope at a point can be found by using

Find for the given value of

The area of a polar region is found by using the formula .

Find the area bounded by the graph of .

Graph by using a T-chart.

|  |  |
| --- | --- |
|  | r |
| 0 |  |
|   |  |
|   |  |
|  |  |
|   |  |
|  |  |

Before we get too happy, we need to remember how to integrate .

We need to use the double angle formulas.

Depending on what you need, you can go two ways.

Let’s go back to the problem.

Find the area of one petal of

Graph by using a T-chart.

|  |  |
| --- | --- |
|  | r |
| 0 |  |
|   |  |
|   |  |
|   |  |
|  |  |
|   |  |
|  |  |

Find the area of one petal of

Graph by using a T-chart.

|  |  |
| --- | --- |
|  | r |
| 0 |  |
|   |  |
|   |  |
|   |  |
|  |  |
|   |  |
|   |  |

Find the area of the interior of

Graph by using a T-chart.

|  |  |
| --- | --- |
|  | r |
| 0 |  |
|   |  |
|   |  |
|  |  |
|   |  |
|  |  |

Find the area of the interior of

Graph by using a T-chart.

|  |  |
| --- | --- |
|  | r |
| 0 |  |
|   |  |
|   |  |
|  |  |
|   |  |
|  |  |