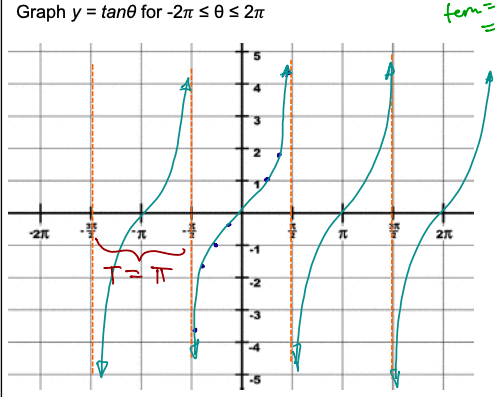
5.3 The Tangent Function

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If x = cos and y=sin and tan

Then, tan

Tan is undefined for\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Domain\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

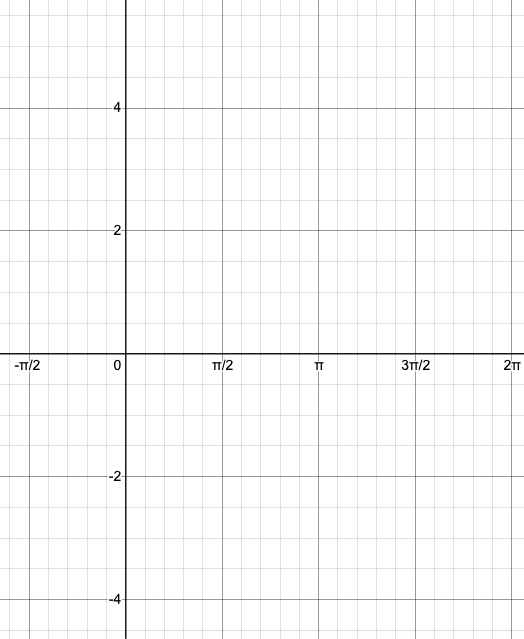
Range\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The period of tan is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Tan has no amplitude\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Ex: 1 Graph the function y= tan θ for 0 ≤ θ ≤ . Describe its characteristics.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Degrees | 0 |  |  |  |  |  |  |  | π |  |  |  |  |  |  |  |  |
| Tan θ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



a) Is the graph continuous?

b) What is the amplitude?

c) Find the domain and range.

d) What is the period?