

---

# **geomi Documentation**

***Release 0.0.0.dev0***

**Arvind Padmanabhan**

October 07, 2016



<b>1</b>	<b>src</b>	<b>3</b>
1.1	geoml package . . . . .	3
<b>2</b>	<b>Indices and tables</b>	<b>7</b>
	<b>Python Module Index</b>	<b>9</b>



Contents:



## 1.1 geomi package

### 1.1.1 Subpackages

**geomi.ndim package**

**Module contents**

**geomi.planar package**

**Submodules**

**geomi.planar.mod1 module**

```
# This syntax with :: and a blank line allows highlighting a code block
foo = 34
bar = 22

foo = 34
bar = 22
```

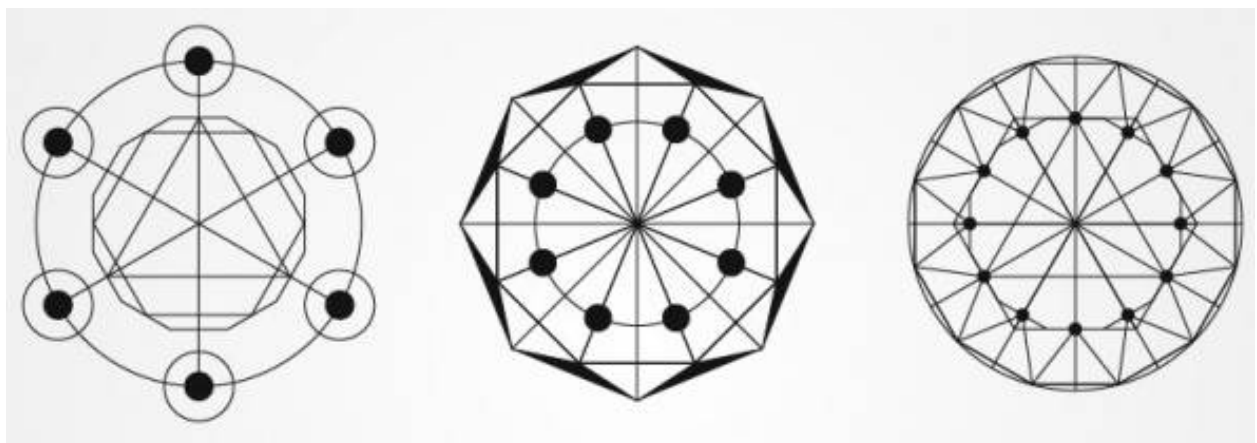


Fig. 1.1: Figure 2: Geometric shapes

This is a module containing functions on planar geometry.

**Description** Functions in this module enable simple calculations: + Find the distance between two points + Find the intersecting points of two lines/curves + Find the axis intercepts of lines/curves + Find the local min/max of curves + Find the area between two lines/curves + Find the area within closed shapes (triangles, polygons) + Find the angle between two intersecting lines

For some functions there is support for both Cartesian as well as Polar coordinate systems. Please consult the documentation at function level.

#### Dependencies

- numpy: basic requirement for all math computations

#### Todo

- Find the perpendicular distance from a point to a line
- Transformations such as rotating a line by x radians
- Asymptotes of a hyperbola

```
class geomi.planar.mod1.Planar1
```

Docstring for class Foo.

**bar = 1**

Doc comment for class attribute Foo.bar. It can have multiple lines.

**baz = 2**

Docstring for class attribute Foo.baz comes after the attribute.

**flox = 1.5**

Doc comment for Foo.flox. One line only.

**func\_in()**

Lorem ipsum dolor sit amet, consectetur adipiscing elit.

Cras viverra mollis pharetra. Nam semper, lectus sit amet tincidunt maximus, nibh tellus accumsan neque, ac varius lacus ante nec augue. Maecenas volutpat sed ipsum ut lacinia. Ut sed consectetur libero. Mauris velit est, scelerisque quis libero eget, aliquet blandit est. Donec bibendum odio et velit convallis, et scelerisque ante fermentum. Duis congue sem ex, at semper turpis egestas nec. Aenean eu condimentum orci, ac efficitur nulla. Etiam facilisis varius quam, at ultrices lectus semper eget. Suspendisse ultrices eros eu porttitor ornare. Nunc vitae diam ultricies, interdum mi a, faucibus leo.

**qux = None**

Comment on a single line for an instance attribute.

**spam = None**

Docstring for instance attribute spam comes after the attribute. This could be very descriptive and spanning multiple lines.

```
geomi.planar.mod1.func1(name, state=None)
```

This function does something.

#### Parameters

- **name** (*str*) – The name to use.
- **state** (*bool*) – Current state to be in.

**Returns** int: error code that is non-zero if in error.

**Raises** AttributeError, KeyError



## geomi.planar.mod2 module

`geomi.planar.mod2.func1()`  
This is func1 dummy docstring.

### External Ref

- [Wikipedia](#)
- [Wikipedia, The Free Encyclopedia](#)

## Module contents

This is the **planar** module that encapsulates a couple of submodules.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras viverra mollis pharetra. Nam semper, lectus sit amet tincidunt maximus, nibh tellus accumsan neque, ac varius lacus ante nec augue. Maecenas volutpat sed ipsum ut lacinia. Ut sed consectetur libero. Mauris velit est, scelerisque quis libero eget, aliquet blandit est. Donec bibendum odio et velit convallis, et scelerisque ante fermentum. Duis congue sem ex, at semper turpis egestas nec. Aenean eu condimentum orci, ac efficitur nulla. Etiam facilisis varius quam, at ultrices lectus semper eget. Suspendisse ultrices eros eu porttitor ornare. Nunc vitae diam ultricies, interdum mi a, faucibus leo.

## geomi.solid package

### Module contents

This is the **solid** module that encapsulates a couple of submodules.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras viverra mollis pharetra. Nam semper, lectus sit amet tincidunt maximus, nibh tellus accumsan neque, ac varius lacus ante nec augue. Maecenas volutpat sed ipsum ut lacinia. Ut sed consectetur libero. Mauris velit est, scelerisque quis libero eget, aliquet blandit est. Donec bibendum odio et velit convallis, et scelerisque ante fermentum. Duis congue sem ex, at semper turpis egestas nec. Aenean eu condimentum orci, ac efficitur nulla. Etiam facilisis varius quam, at ultrices lectus semper eget. Suspendisse ultrices eros eu porttitor ornare. Nunc vitae diam ultricies, interdum mi a, faucibus leo.

## geomi.utils package

### Subpackages

#### geomi.utils.algos package

### Module contents

#### geomi.utils.plotter package

### Module contents

## Module contents

### 1.1.2 Module contents

Planar, solid and higher dimensional geometry. <<https://geomi.readthedocs.io/>>

---

## Indices and tables

---

- `genindex`
- `modindex`
- `search`



## g

- `geomi`, 6
- `geomi.ndim`, 3
- `geomi.planar`, 5
  - `geomi.planar.mod1`, 3
  - `geomi.planar.mod2`, 5
- `geomi.solid`, 5
- `geomi.utils`, 6
  - `geomi.utils.algos`, 5
  - `geomi.utils.plotter`, 5



## B

bar (geomi.planar.mod1.Planar1 attribute), 4

baz (geomi.planar.mod1.Planar1 attribute), 4

## F

flox (geomi.planar.mod1.Planar1 attribute), 4

func1() (in module geomi.planar.mod1), 4

func1() (in module geomi.planar.mod2), 5

func\_in() (geomi.planar.mod1.Planar1 method), 4

## G

geomi (module), 6

geomi.ndim (module), 3

geomi.planar (module), 5

geomi.planar.mod1 (module), 3

geomi.planar.mod2 (module), 5

geomi.solid (module), 5

geomi.utils (module), 6

geomi.utils.algos (module), 5

geomi.utils.plotter (module), 5

## P

Planar1 (class in geomi.planar.mod1), 4

## Q

qux (geomi.planar.mod1.Planar1 attribute), 4

## S

spam (geomi.planar.mod1.Planar1 attribute), 4