

## utils

- `dist()`
- `dot()`
- `min-by()`
- `normalise()`
- `to-angle()`
- `vec-diff()`
- `vec-sum()`

### dist

A helper function to calculate the distance between two points.

#### Parameters

```
dist(  
  pt1: array ,  
  pt2: array ,  
  kind  
) -> int float decimal
```

**pt1**    array

The first point.

**pt2**    array

The second point.

### dot

A helper function to calculate the dot product of two vectors.

#### Parameters

```
dot(  
  vec1: array ,  
  vec2: array  
) -> int float decimal
```

**vec1**    array

The first vector.

**vec2**    array

The second vector.

## min-by

A filter function that returns the minimum value based on a given function.

### Parameters

```
min-by(  
  values: array,  
  func: function,  
  default  
) -> any
```

**values** array

The values to filter.

**func** function

The function to filter by.

## normalise

A helper function to normalise a vector.

### Parameters

```
normalise(  
  vec: array,  
  to: int float decimal  
) -> array
```

**vec** array

The vector to normalise.

**to** int or float or decimal

The length of the vector.

Default: 1

## to-angle

A helper function to convert types into an angle.

### Parameters

```
to-angle(value: angle ratio int float decimal) -> angle
```

**value** angle or ratio or int or float or decimal

The rotation of the hexagon.

## vec-diff

A helper function to calculate the difference of vectors.

### Parameters

```
vec-diff(  
  vec1: array ,  
  ..vecs: array  
) -> array
```

**vec1**    array

The vector to subtract from.

**..vecs**    array

The vector to subtract.

## vec-sum

A helper function to calculate the sum of vectors.

### Parameters

```
vec-sum(..vecs: array ) -> array
```

**..vecs**    array

The vector to sum.

## coordinates

- to-euclidean()

### to-euclidean

Transforms an axial coordinate to an euclidean coordinate.

### Parameters

```
to-euclidean(  
  r,  
  q  
) -> tuple
```