

Exercises

- 1) Find the absolute value of a number.
- 2) Calculate the square root of a number.
- 3) Round a number up to the nearest integer.
- 4) Round a number down to the nearest integer.
- 5) Calculate the sine of an angle in radians.
- 6) Calculate the cosine of an angle in radians.
- 7) Calculate the tangent of an angle in radians.
- 8) Convert degrees to radians.
- 9) Convert radians to degrees.
- 10) Find the smallest integer greater than or equal to a number.

Exercises and solution

- 1) Find the absolute value of a number.

```
import math

number = -5
absolute_value = math.fabs(number)

print(absolute_value)
```

- 2) Calculate the square root of a number.

```
import math

number = 25
square_root = math.sqrt(number)

print(square_root)
```

- 3) Round a number up to the nearest integer.

```
import math

number = 4.6
rounded_up = math.ceil(number)

print(rounded_up)
```

4) Round a number down to the nearest integer.

```
import math

number = 4.6
rounded_down = math.floor(number)

print(rounded_down)
```

5) Calculate the sine of an angle in radians.

```
import math

angle_in_radians = math.pi/4
sine_value = math.sin(angle_in_radians)

print(sine_value)
```

6) Calculate the cosine of an angle in radians.

```
import math

angle_in_radians = math.pi/4
cosine_value = math.cos(angle_in_radians)

print(cosine_value)
```

7) Calculate the tangent of an angle in radians.

```
import math

angle_in_radians = math.pi/4
tangent_value = math.tan(angle_in_radians)

print(tangent_value)
```

8) Convert degrees to radians.

```
import math

angle_in_degrees = 45
angle_in_radians = math.radians(angle_in_degrees)

print(angle_in_radians)
```

9) Convert radians to degrees.

```
import math

angle_in_radians = math.pi/4
angle_in_degrees = math.degrees(angle_in_radians)

print(angle_in_degrees)
```

10) Find the smallest integer greater than or equal to a number.

```
import math

number = 4.6
smallest_integer = math.ceil(number)

print(smallest_integer)
```