Type inference in Swift is the process by which the compiler deduces the type of a variable or expression based on the context in which it is used. This can make your code more concise and readable, as you do not need to explicitly specify the type of every variable or expression.

Here is an example of type inference in Swift:

```Swift
var myString = "Hello, world!"

// The compiler can infer that the type of myString is String, based on
the value that is assigned to it.

var myNumber = 10

// The compiler can infer that the type of myNumber is Int, based on
the value that is assigned to it.
```

Here is an example of when type inference is not used:

```Swift
var myVariable: String // The type of myVariable is explicitly
specified.
```

In this example, the type of `myVariable` is explicitly specified as `String`. The compiler does not need to use type inference to determine the type of `myVariable`.

Here is another example of when type inference is not used:

```Swift
var myVariable: Any = "Hello, world!"

// The type of myVariable is Any, which means that it can store any
value, regardless of type.
```

In this example, the type of `myVariable` is explicitly specified as `Any`. This means that the compiler does not need to use type inference to determine the type of `myVariable`.

Type inference is a powerful feature of Swift that can make your code more concise and readable. However, it is important to understand how type

inference works so that you can avoid errors.

Here are some additional tips for using type inference in Swift:

- When you declare a variable or constant without assigning it a value, the compiler will infer the type of the variable or constant based on the context in which it is used.
- The compiler can infer the type of a variable or expression based on the types of the operands in the expression.
- You can use type annotations to explicitly specify the type of a variable or expression. This can be useful if the compiler cannot infer the type of a variable or expression, or if you want to make the code more explicit.

Overall, type inference is a valuable tool for any Swift developer. It can make your code more concise, readable, and maintainable.