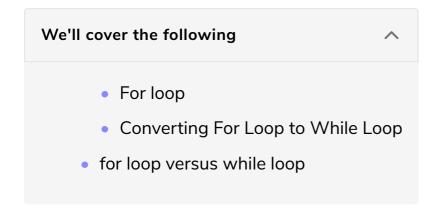
## **Equivalence of Looping Structures**

This lesson explains how we can covert a for loop into a while loop.



## For loop #

An example of for loop is given below:

## Converting For Loop to While Loop #

The above for loop can easily be rewritten as a while loop. Notice the extra enclosing brackets, and the two extra semicolons after the expressions in order to turn them into statements.

```
<?php
$i=0;
while ($i<10) {
    $i = $i*2;
    echo "Value of i is: $i\n";
    $i++;
}
echo "Final value of i is: $i\n";
?>
```









## for loop versus while loop #

A for loop is more often used by programmers due to its conciseness as well as its separation of the looping logic (often using a loop control variable like "\$i" or another simple iterator) from the loop's content.

A while loop is often preferred if the *initial* statement or update statement requires more complex code than what would fit neatly into the for construct. However, the two are *equivalent*. Therefore, it is ultimately a coding style decision, not a technical decision about whether to use one or the other.

In the next lesson, we'll discuss infinite loops and how they arise.