

Mini exercises

1. Write a for loop that prints out the squared and cubed numbers up to 20.
2. Write a for loop that starts at 2 and increments in steps of 2 up to 100. Print out the number.
Here is an example of incrementing a variable by 2:

```
int a = 0;  
a = a + 2; // long-hand way  
a += 2; // short-hand way
```

3. Write a for loop that starts at 100 and decrements in steps of 2 down to 0. Print out the number.

Here is an example of decrementing a variable by 2:

```
int b = 0;  
b = b - 2; // long-hand way  
b -= 2; // short-hand way
```

4. Rewrite (3) to ask the user the start and end numbers for the loop.
5. Rewrite (2) as a while loop.
6. Loops can appear in a loop (known as nested loops), see try the following code (it will need to be inserted in a *main* method of course):

```
for(int a = 1; a < 5; a++) {  
    for(int b = 1; b < 10; b++) {  
        System.out.println("a + b is" + (a + b));  
    }  
}
```

7. Using nested loops, can you print out the [multiplication square](#) to the terminal?