

## CGS Lesson 2

# Worksheet options

- Worksheets work 2-2

### Assignment 1:

The starting square is B1, the same obstacle, draw the road and note the road for the tower, stop when you end up on A1

	O					O	
O							
			O				
							O
	Start						

Write here how the tower moves. (forward or **right**) :

And mark with colour in the code which option is selected:

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
```

```
else  
{right}
```

```
if (the square in front is free)  
{forward}  
else  
{right}
```

```
if (the square in front is free)  
{forward}  
else  
{right}
```

```
if (the square in front is free)  
{forward}  
else  
{right}
```

```
if (the square in front is free)  
{forward}  
else  
{right}
```

```
if (the square in front is free)  
{forward}  
else  
{right}
```

```
if (the square in front is free)  
{forward}  
else  
{right}
```

```
if (the square in front is free)  
{forward}  
else  
{right}
```

```
if (the square in front is free)  
{forward}  
else  
{right}
```

```
if (the square in front is free)  
{forward}  
else
```

```
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

```
if (the square in front is free)
{forward}
else
{right}
```

## Assignment 2:

Same exercise, but the tower's alternative is left instead of right:

```
if (the square in front is free)
{ forward }
```

```
otherwise
{left}
```

The result will be completely different.

## Solutions

### Worksheet alternative lesson 2

The starting square is B1, the same obstacle, draw the road and note the road for the tower, stop when you end up on A1

	O					O		
O								
			O					
							O	
	Start							

Solution:

```
forward;forward;forward;forward;forward;right;
forward;forward;forward;forward;forward;forward;right;forward;forward;forward;right;forward;forward;forward;forward;forward;right;forward;forward;right;forward;forward;right;forward;forward;
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
```

```
{ forward }  
else  
{right}
```

```
if (the square in front is free)  
{ forward }  
else  
{right}
```

```
if (the square in front is free)  
{ forward }  
else  
{right}
```

```
if (the square in front is free)  
{ forward }  
else  
{right}
```

```
if (the square in front is free)  
{forward}  
else  
{ right }
```

```
if (the square in front is free)  
{ forward }  
else  
{right}
```

```
if (the square in front is free)  
{ forward }  
else  
{right}
```

```
if (the square in front is free)  
{ forward }  
else  
{right}
```

```
if (the square in front is free)  
{ forward }  
else  
{right}
```

```
if (the square in front is free)  
{ forward }  
else
```

```
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{forward}
else
{ right }
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```



```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{forward}
else
{ right }
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{forward}
else
{ right }
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{forward}
else
{ right }
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

```
if (the square in front is free)
{ forward }
else
{right}
```

addition: same exercise but the tower's alternative is left instead of right:

```
if (the square in front is free)
{ forward }
else
{left}
```

```
if (the square in front is free)
{forward}
otherwise
{ left }
```

The result will be completely different.

```
forward
forward
forward
forward
forward
forward
forward
left
forward
left
left
forward
forward
forward
forward
forward
forward
left
forward
forward
left
forward
forward
forward
forward
forward
forward
```

forward

left

forward

forward

left

stop on the A6 square, the loop starts here.

## Worksheet Repetition

### Assignment 1

Simplify the code using the repeat command:

```
forward; forward; forward; forward; forward; right; forward; forward;  
forward; forward; forward; forward; right; forward; forward; forward; right; forward; forward; forward;  
forward; forward; forward; forward; right; forward; right; forward; forward; right; forward; forward;  
forward;
```

Enter your code here: use repeat ( ) { }

### Assignment 2

Simplify the code using the repeat command:

```
forward; right; right; forward; forward; left; forward; forward; forward; back; back; right; forward;  
forward; forward; right; forward; forward; forward; forward; forward; forward; forward
```

Enter your code here: use repeat ( ) { }

## Solutions Lesson 2

# Worksheet Repetition

Solution 1:

```
repeat (5) {forward}  
right  
repeat (6) {forward}  
right  
repeat (3) {forward}  
right  
repeat (7) {forward}  
right  
forward  
right  
repeat (2) {forward}  
right  
repeat (3) {forward}
```

## Solution 2

```
forward  
repeat (2) {right}  
repeat (2) {forward}  
left;  
repeat (3) {forward}  
repeat (2) {back}
```

```
right  
repeat (3) {forward}  
right  
repeat (7) {forward}
```