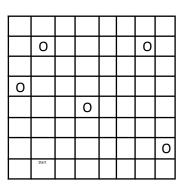
CGS Lesson 2

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



Write here how the tower moves. (forward or \mbox{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 }



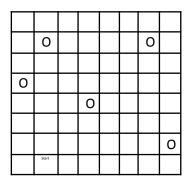
otherwise {left}

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



Solution:

forward;forward;forward;forward; right;

forward;forwar

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

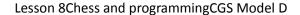
if (the square in front is free)

```
{ 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
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; right; forward; forward;

Enter your code here: use repeat () {}

Assignment 2

Simplify the code using the repeat command:

forward; right; right; forward; forward; forward; forward; forward; back; back; right; forward; forwar

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}
right
repeat (3) {forward}

Solution 2

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

Lesson 8Chess and programmingCGS Model D

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