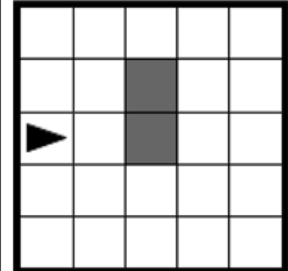
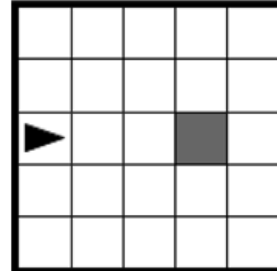
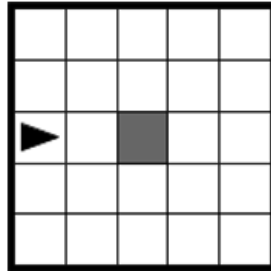
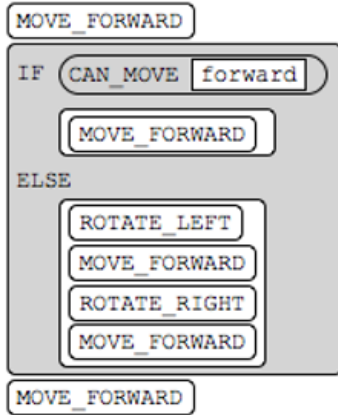


Name _____ Period _____

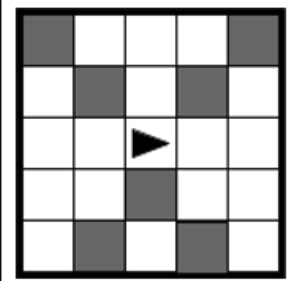
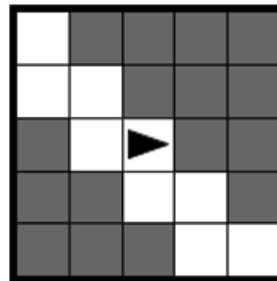
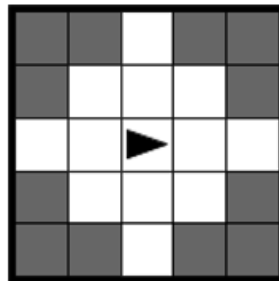
Skill 30.01 Exercises 1 thru 3

Basic If-Statements



```

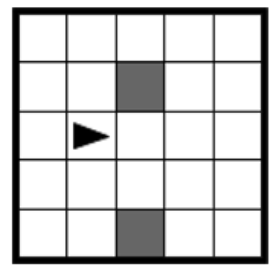
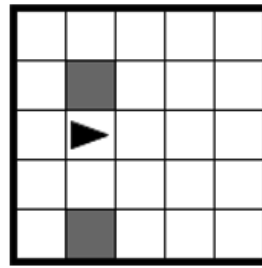
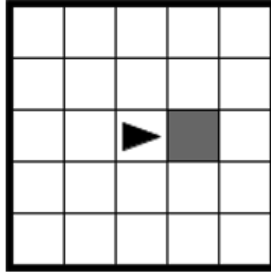
IF (CAN_MOVE (left))
{
  ROTATE_LEFT ()
  MOVE_FORWARD ()
}
ELSE
{
  ROTATE_RIGHT ()
  MOVE_FORWARD ()
}
IF (CAN_MOVE (right))
{
  ROTATE_RIGHT ()
}
ELSE
{
  ROTATE_LEFT ()
}
MOVE_FORWARD ()
  
```



Name _____ Period _____

Nested If-Else Statements

```
IF (CAN_MOVE (forward))  
{  
  IF (CAN_MOVE (left))  
  {  
    ROTATE_LEFT ()  
  }  
  ELSE{  
    ROTATE_RIGHT ()  
  }  
  MOVE_FORWARD ()  
}  
ELSE  
{  
  ROTATE_LEFT ()  
  ROTATE_LEFT ()  
}  
MOVE_FORWARD ()
```



Skill 30.02 Exercise 1

Below is the start of a program. Write an if-else statement that checks whether or not someone is old enough to drive. If they are 16 or older, indicate to the user that they are old enough to drive. Otherwise, indicate to the user how long they need to wait until they can drive.

```
var age = prompt("What is your age");
```

Name _____ Period _____

Skill 30.02 Exercise 2

You are writing a number guessing game and want to provide feedback to the user that their guess is correct, cold, warm, or hot. Your program should generate a random number from 1 to 100 (inclusive). If the guess is within ± 5 of the actual number, your program should print “hot!”. If the guess is within ± 10 , your program should print “warm!”, otherwise your program should print “cold!”. In addition to indicating how close the user is. You should indicate whether their guess is too big or too small.

Your program should produce the following output for the conditions below,

var rand = 25;

User input	Output
21	Too small, hot
30	Too big, hot
35	Too big, warm
16	Too small, warm
5	Too small, cold
60	Too big, cold
25	You guessed it!

Name _____ Period _____

Skill 30.03 Exercise 1

Consider the WORDLE game described below,

Guess the **WORDLE** in 6 tries.

Each guess must be a valid 5 letter word. Hit the enter button to submit.

After each guess, the color of the tiles will change to show how close your guess was to the word.

Examples

W **E** **A** **R** **Y**

The letter **W** is in the word and in the correct spot.

P **I** **L** **L** **S**

The letter **I** is in the word but in the wrong spot.

V **A** **G** **U** **E**

The letter **U** is not in the word in any spot.

A new WORDLE will be available each day!

The following code can be used to create the first row of letter boxes.

```
var dim = 50;
function makeLetterBox(d, xPos, yPos, id){
var b = document.createElement("div");
b.style.width = d+"px";
b.style.height = d+"px";
b.style.position = "absolute";
b.style.left = xPos + "px";
b.style.top = yPos + "px";
b.style.border = "blue thin solid";
b.style.fontSize = "2em";
b.style.textAlign = "center";
b.style.paddingTop = "5px";
b.style.color = "white";
b.style.innerHTML = "";
b.id = id;
document.body.append(b);
return b;
}

var b0 = makeLetterBox(dim, dim*0, dim*0, 0);
var b1 = makeLetterBox(dim, dim*1, dim*0, 1);
```

Name _____ Period _____

```
var b2 = makeLetterBox(dim, dim*2, dim*0, 2);  
var b3 = makeLetterBox(dim, dim*3, dim*0, 3);  
var b4 = makeLetterBox(dim, dim*4, dim*0, 4);
```

The code above displays the following.



Below represents possible scenarios when the user types a guess,



The word to guess is defined below,

```
wordToGuess = wordBank[Math.floor(Math.random()*wordBank.length)];
```

Write an algorithm that could be used to check the first letter of the guess. Your algorithm should get the letter from the first box only (innerHTML) and compare it to each letter in the word. If the letter is not in the word, the background of the box should be changed to GRAY. If the letter is in the word, but not in the correct location, the background color of the box should be changed to YELLOW. If the letter is in the word and in the correct location, the box should be changed to GREEN.

AP Computer Science Principles

Ticket Out the Door

Set 30: If-Else Statements

Name _____ Period _____
