Name _____ Date _____

3.3 MAC addresses

Getting started

Tick (✓) to show which statements are True, and which are False.

	True	False
The first part of the MAC address is the manufacturer code.		
Two devices can have the same MAC address.		
MAC stands for Media Accessible Code.		
A MAC address is 48 bytes.		
The second part of the MAC address is the model of the device.		
A MAC address is assigned by its manufacturer.		
You can easily change your MAC address.		

Practice

Identify which of the following MAC addresses are valid, and which are not valid.
If an address is not valid, identify all the reasons why in your justification.

	Valid	Invalid	Justification
01:BB:59:45:36:AA			
10BBAACCFF34			
00:01:02:03:04:FG			
ff:ff:ff:ff:ff:ff			
AB:BA:GH:HG:20			
2D:59:A2:3F:00:11:BB			
03:de:10:22:9c:dd			

Challenge

1 A MAC address consists of 6 pairs of hexadecimal digits.

   Identify the smallest 2-digits and the largest 2-digits each part can hold.

2 Convert the following MAC address into binary.

   8F:33:A1:BE:00:81

3 Convert the following binary address into a hexadecimal MAC address.

   10100011:11111111:00011101:11000110:10110011:01011010