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# **EBU6042: Advanced Network Programming**

## **Tutorial 2: Sockets**

# Q1

Given the following lines from a Java program segment, *which of the lines of code* could be used to *establish an incoming connection with a requesting host?*

```
ServerSocket listenSocket = new ServerSocket(7890);  
Socket connectionSocket;
```

- A. `connectionSocket = ServerSocket.accept();`
- B. `connectionSocket = listenSocket.accept();`
- C. `ServerSocket.accept = connectionSocket;`
- D. `Socket connection = ServerSocket.accept();`

# Q2

Which Java class encapsulates information about a host's IP address?

- A. `InetAddress`
- B. `Connection`
- C. `ServerSocket`
- D. `RemoteAddr`

# Q3

One of the following successfully creates a client socket connection to a server process listening at *port 1300* on the host *myhost*:

- A. `Socket connection = new Socket("myhost",1300) ;`
- B. `Socket connection = new Socket(new  
URL("myhost:1300")) ;`
- C. `Socket connection = new Socket(1300,"myhost") ;`
- D. `Socket connection =  
Socket.getConnection("myhost",1300) ;`

# Q4. Programming exercise

Write a *Client-Server socket program* such that:

1. The **Client** should send the numbers **1** to **10** to the **Server**.
2. The **Server** should calculate the square of each number and send it back to the **Client**. The **Client** then displays the returned numbers to the console.

# Homework questions ...

**Q5.** How can a *client* get a line of text from a *server*?

**Q6.** Describe how a *client* connects to a *server*.