

## L2 Réseau 1

Département d'Informatique

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### TD1: Introduction to Networks

#### Exercise 1.1: Vertical and Horizontal Communication

Explain by the example of a telephone service the difference between vertical and horizontal communication. Sketch the communication process. **Notes:** Your example must consist of at least 2 layers. Name and explain them. Keep in mind that the user itself is not a layer, but only uses them.

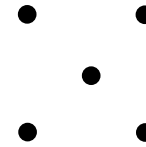
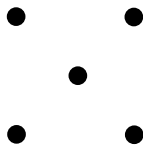
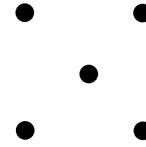
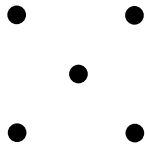
#### Exercise 1.2: Network Components

Identify and name the network components below.

	_____		_____
	_____		_____
	_____		_____
	_____		_____
	_____		_____
	_____		_____
			_____

### Exercise 1.3: Network Topologies

a) Use the stations (routers) in the diagrams below in order to design networks of the type ring, star, bus and fully meshed.



b) Think of pros and cons of the sketched networks above. What are their advantages and disadvantages?

### Exercise 1.4: Signals, Data and Information

Assume you are at the airport and you hear the announcement that your plane is ready for boarding. Explain the terms “Signals, Data and Information” by giving a suitable example for each of them.