

1. Assign the individual technologies to the corresponding generations of mobile systems:

UMTS, NMT, GSM, LTE, LTE-A, CDMA, GPRS, HSPA, EDGE, HSPA+, GSM.

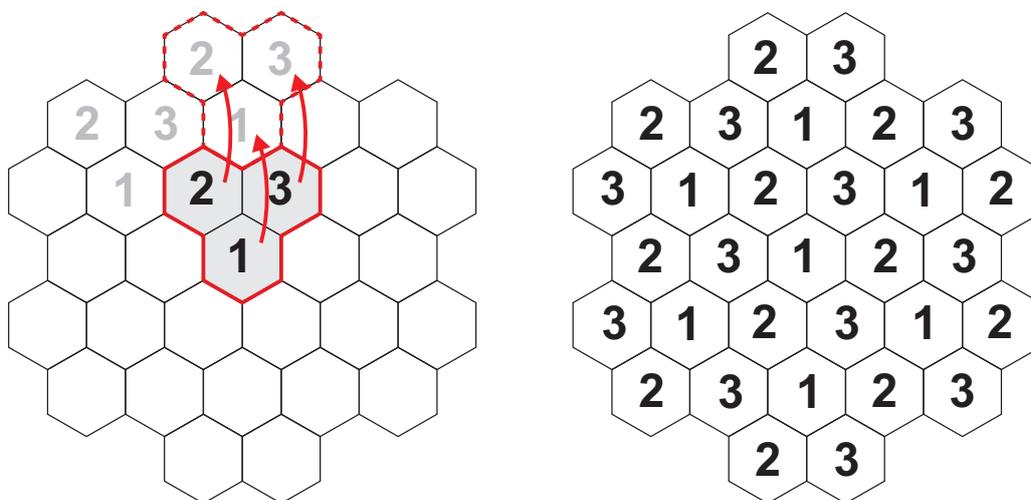
1 st generation	NMT
2 nd generation	GSM, GPRS, EDGE
3 rd generation	HSPA, HSPA+, UMTS, LTE
4th generation	LTE-A

2. Sort the types of cells in mobile networks from the smallest (1) to the largest (5).

- 3 microcell
- 1 femtocell
- 4 macrocell
- 5 satellite cell
- 2 picocell

3. Propose and draw a frequency plan (you have 3 frequencies available).

This problem has more than one solution. The procedure and one of the possible solutions are provided below.



4. Correct the text so that the following statement is true.

This problem has 2 solutions.

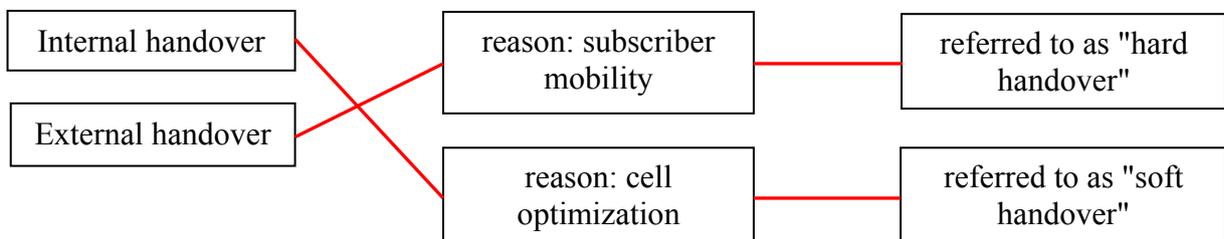
The number of base stations in a network (~~with sectorization~~) is **3** times (**higher**)
 than in a network (**with sectorization**)
~~without sectorization~~).

The number of base stations in a network (**with sectorization**) is **3** times (**higher**)
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without sectorization).

5. List three basic parameters that characterize the access methods used in mobile networks.

1. **time**
2. **frequency**
3. **power**

6. Assign the reasons to the corresponding term used for automatic handover.



7. Identify what physical principle appears during multipath propagation of waves in the individual cases below.

