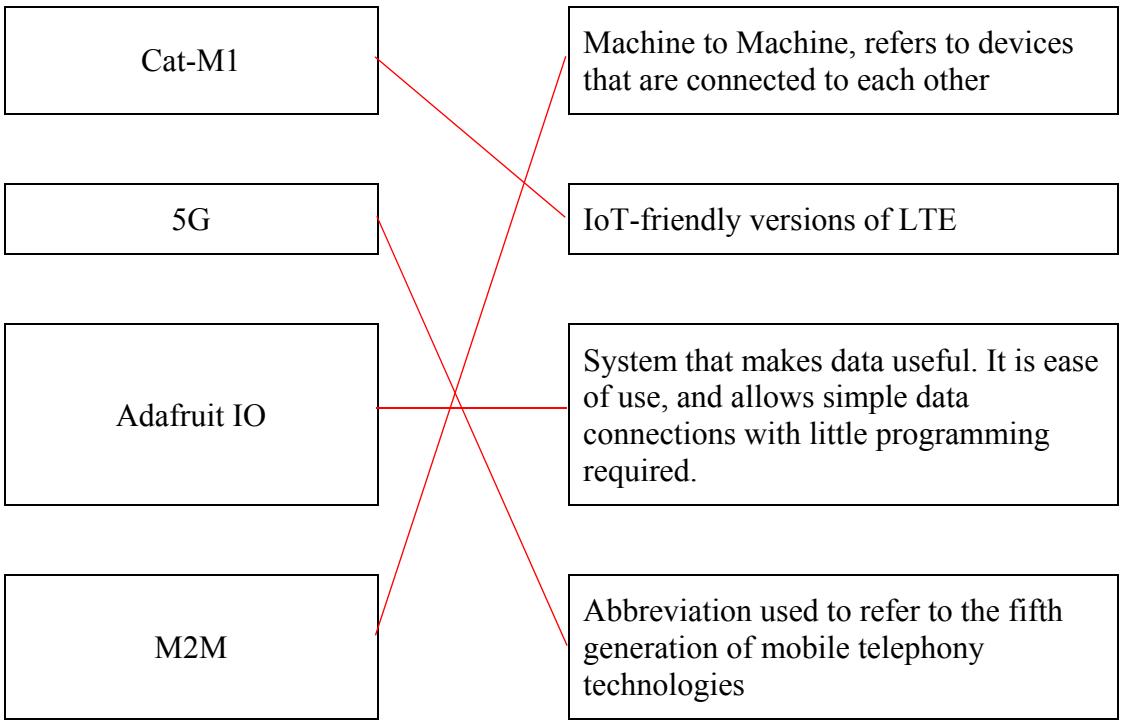
1. Assign the terms from the left column to the corresponding definitions on the right.



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2. List three basic parameters that characterize IPv6 (Internet protocol version 6)

1. IPv6 uses a 128-bit address format
2. More efficient routing
3. Easier administration

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

IPv6 addresses are represented as (~~four~~ eight) groups of (four ~~two~~) hexadecimal digits.

IoT devices in (indoor ~~outdoor~~) installations commonly use Wi-Fi and Bluetooth.

Wi-Fi power consumption is much (higher ~~lower~~) than Bluetooth.

The 5G technology will work in the bands of (~~1.6 and 35 GHz~~ 3.6 and 26 GHz) in 2020 at the European Community.

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IoT enabled devices will operate at low powers with battery life of up to (~~four~~ ten) years in some applications.

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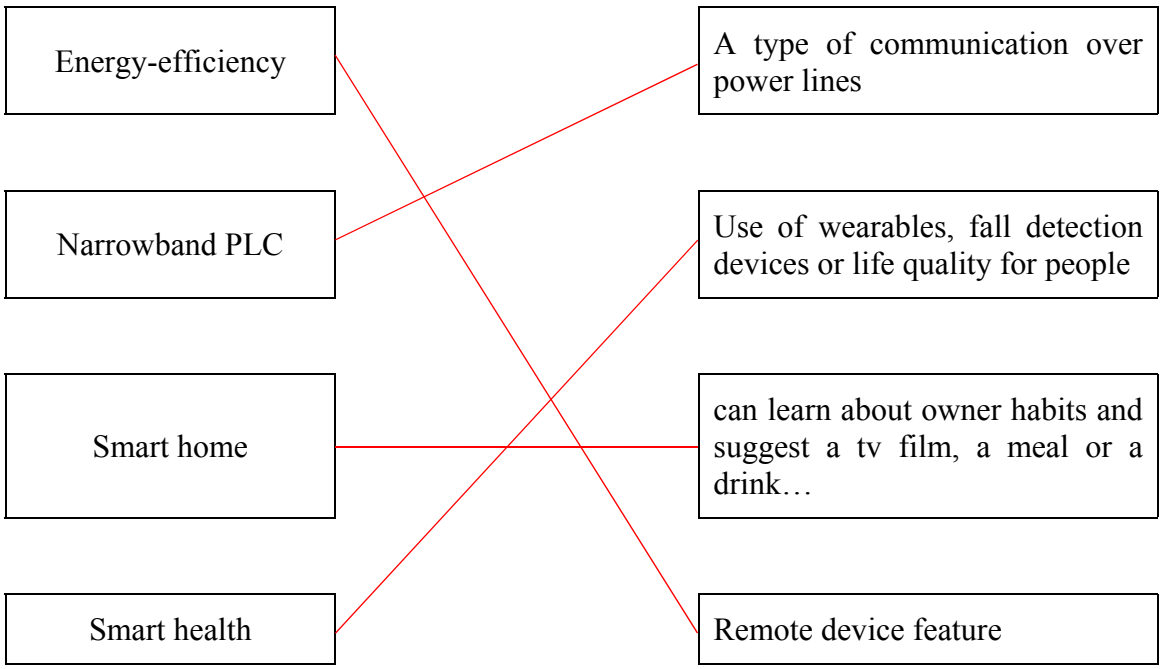
4. Assign the terms from the left column to the corresponding definitions on the right.



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5. List a minimum of 4 basic applications and its description in the field of smart cities.

1. **Structural health**: Monitoring of vibrations and material conditions in buildings, bridges and historical monuments
2. **Traffic congestion**: Monitoring of vehicles and pedestrians levels to optimize driving and walking routes
3. **Smart lighting**: Intelligent and weather adaptive lighting in streets lights
4. **Potable water monitoring**: Monitoring of the quality of tap water in cities

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6. Correct the text so that the following statements are true.

Commercial IoT devices use (either ZigBee or Bluetooth / ~~an IP network~~) to communicate with others.

A smart grid (~~combines sources of fossil energy with laptops and smartphones in~~ / integrates the information and communication technologies to) the electricity network to have a smart energy management.

Smart farming provides the farmer with opportunities for (~~combines sources of fossil~~ / better decision-making) and (more efficient management / better decision-making).

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