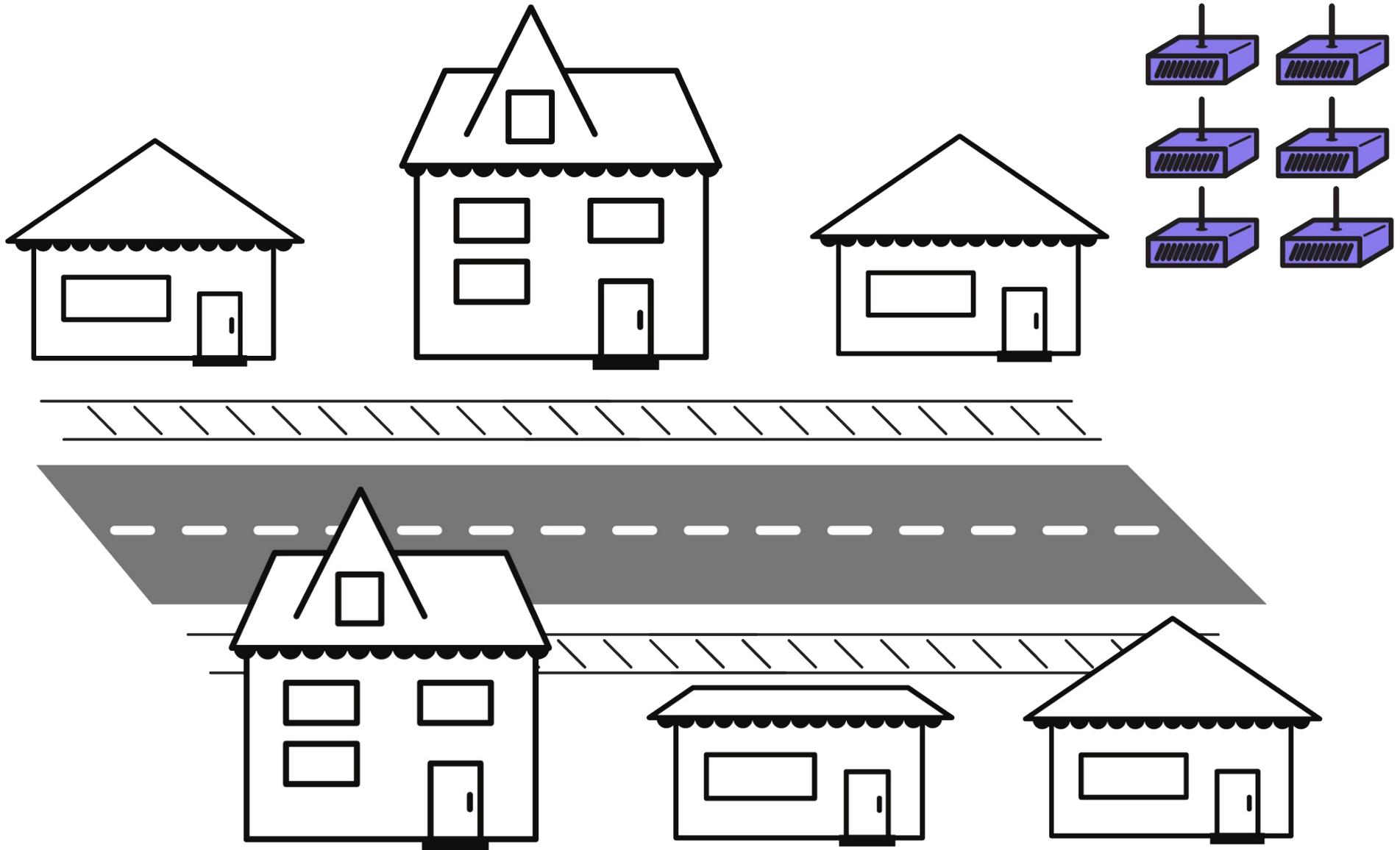# Types of Wireless Networks

## Design-your-own network worksheets

Worksheet 1: A Group of Houses

In this scenario, there are six houses. Connect them all with the six omnidirectional routers provided. Routers can be configured as **Access Points**, **Clients**, or **Mesh Nodes** - mark them "**A**", "**C**", or "**M**", depending on their role. Connect the routers with a solid line.

Worksheet 2: Using a Taller Building

In this scenario, there are many houses and one taller building. Connect as many as possible with the four omnidirectional and two directional routers provided. Routers can be configured as **Access Points**, **Clients**, or **Mesh Nodes** - mark them "**A**", "**C**", or "**M**", depending on their role. Connect the routers with a solid line.
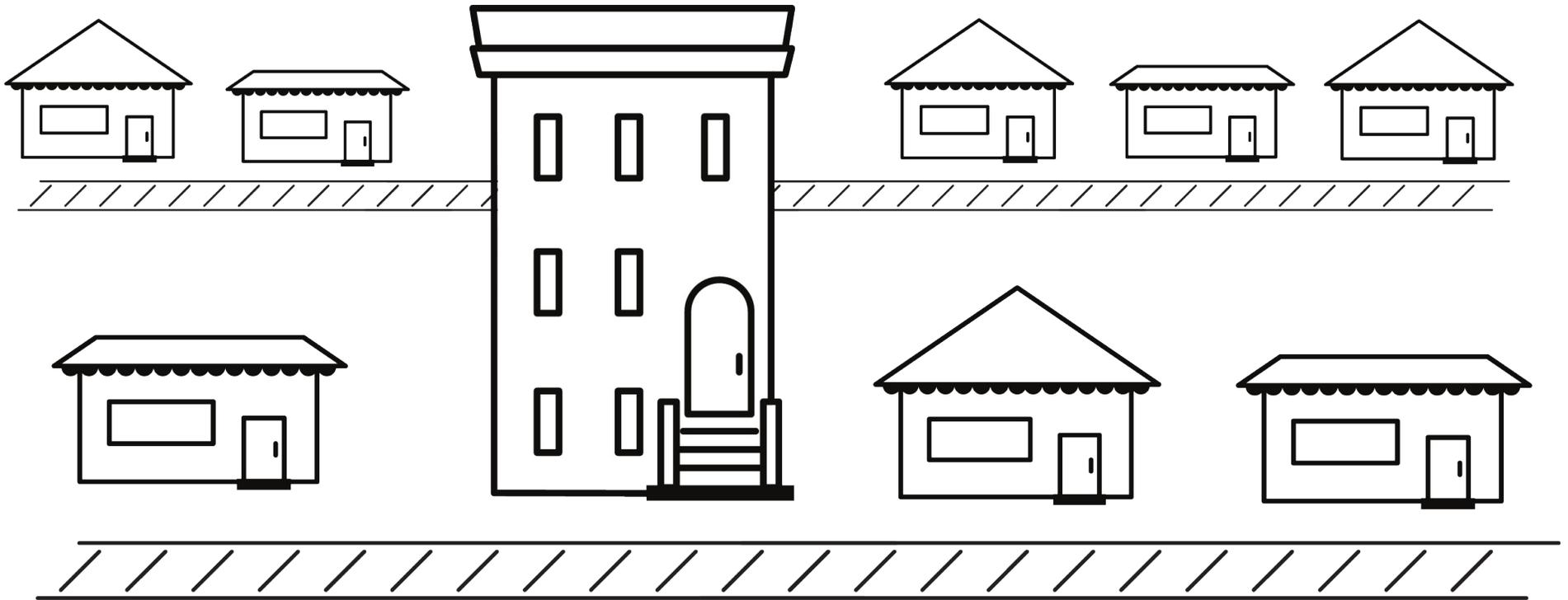
Worksheet 3: Rural Areas

In this scenario, there are a few houses spread far apart. Connect all three together using the least number of directional routers possible. Routers can be configured as **Access Points**, **Clients**, or **Mesh Nodes** - mark them "**A**", "**C**", or "**M**", depending on their role. Connect the routers with a solid line.
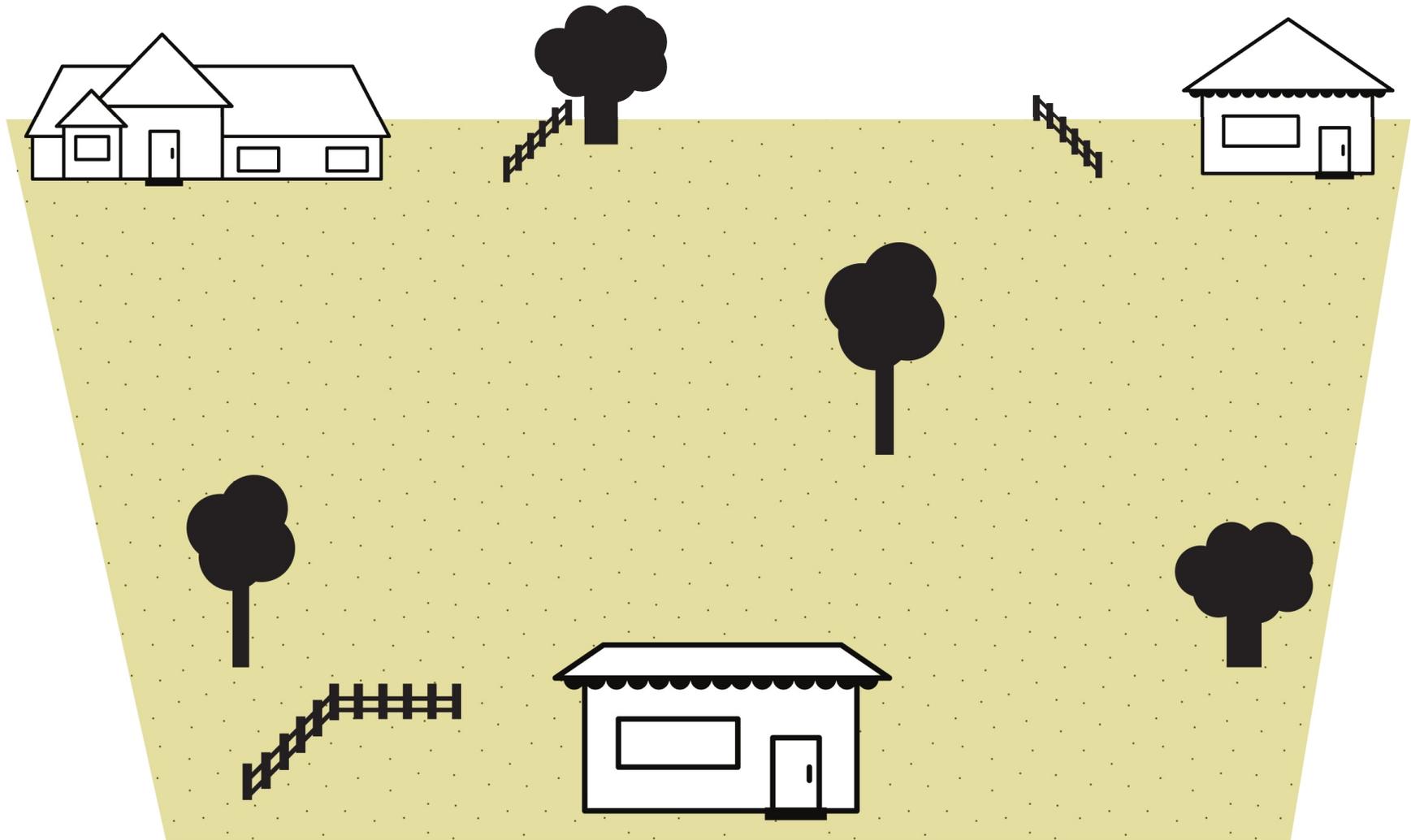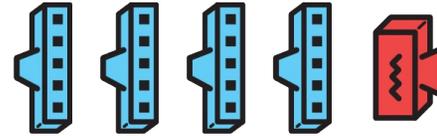
Worksheet 4: Mixed Height Buildings

In this scenario, there is a cluster of buildings - all various heights. Connect as many buildings as you can with the routers provided. Routers can be configured as **Access Points**, **Clients**, or **Mesh Nodes** - mark them "**A**", "**C**", or "**M**", depending on their role. Connect the routers with a solid line.
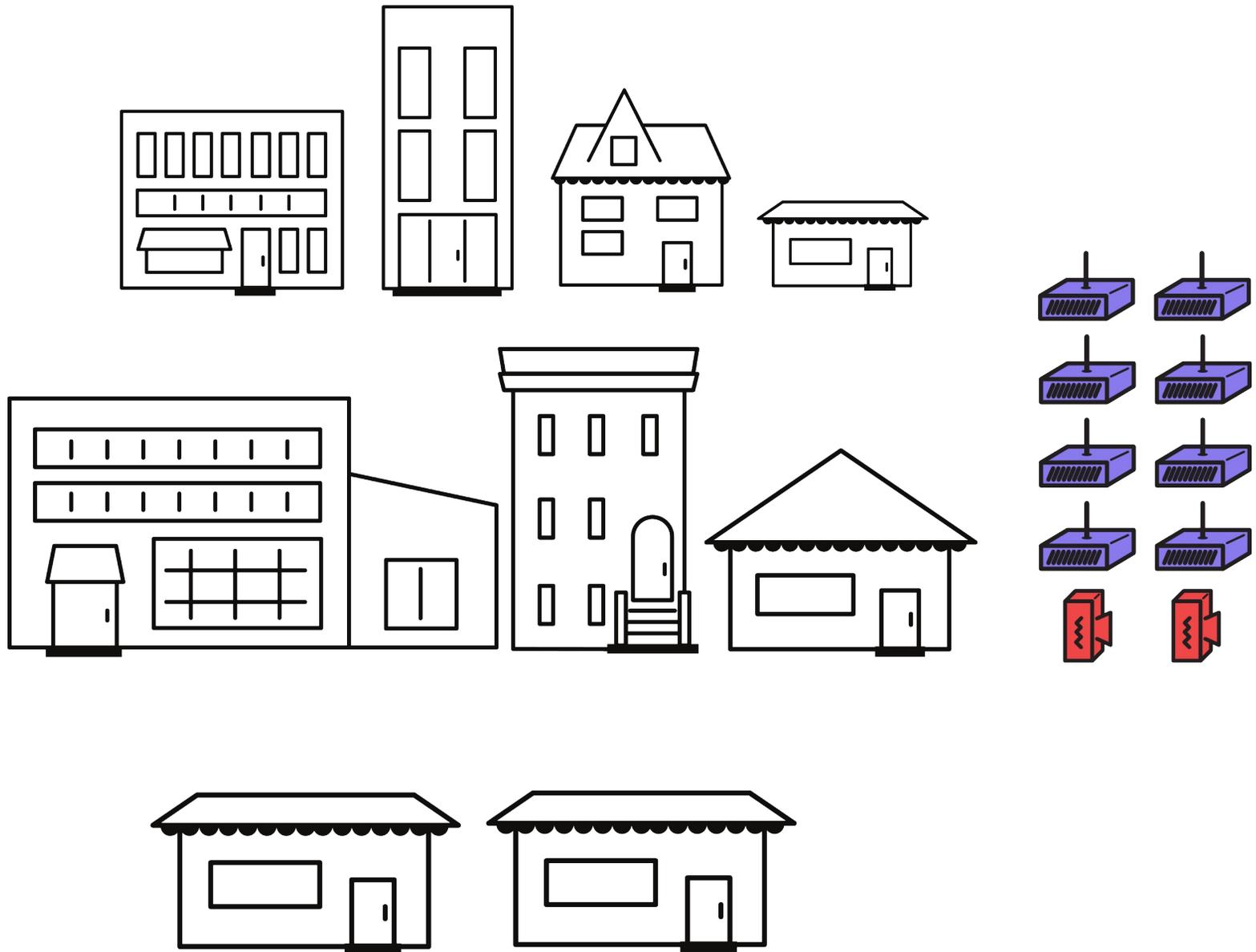
Worksheet 5: Many Obstructions to Wireless

In this scenario, there is a set of buildings with many trees inbetween. Connect as many buildings as you can with the routers provided, but *the wireless signals in this scenario cannot pass through the trees*. Routers can be configured as **Access Points**, **Clients**, or **Mesh Nodes** - mark them "**A**", "**C**", or "**M**", depending on their role. Connect the routers with a solid line.
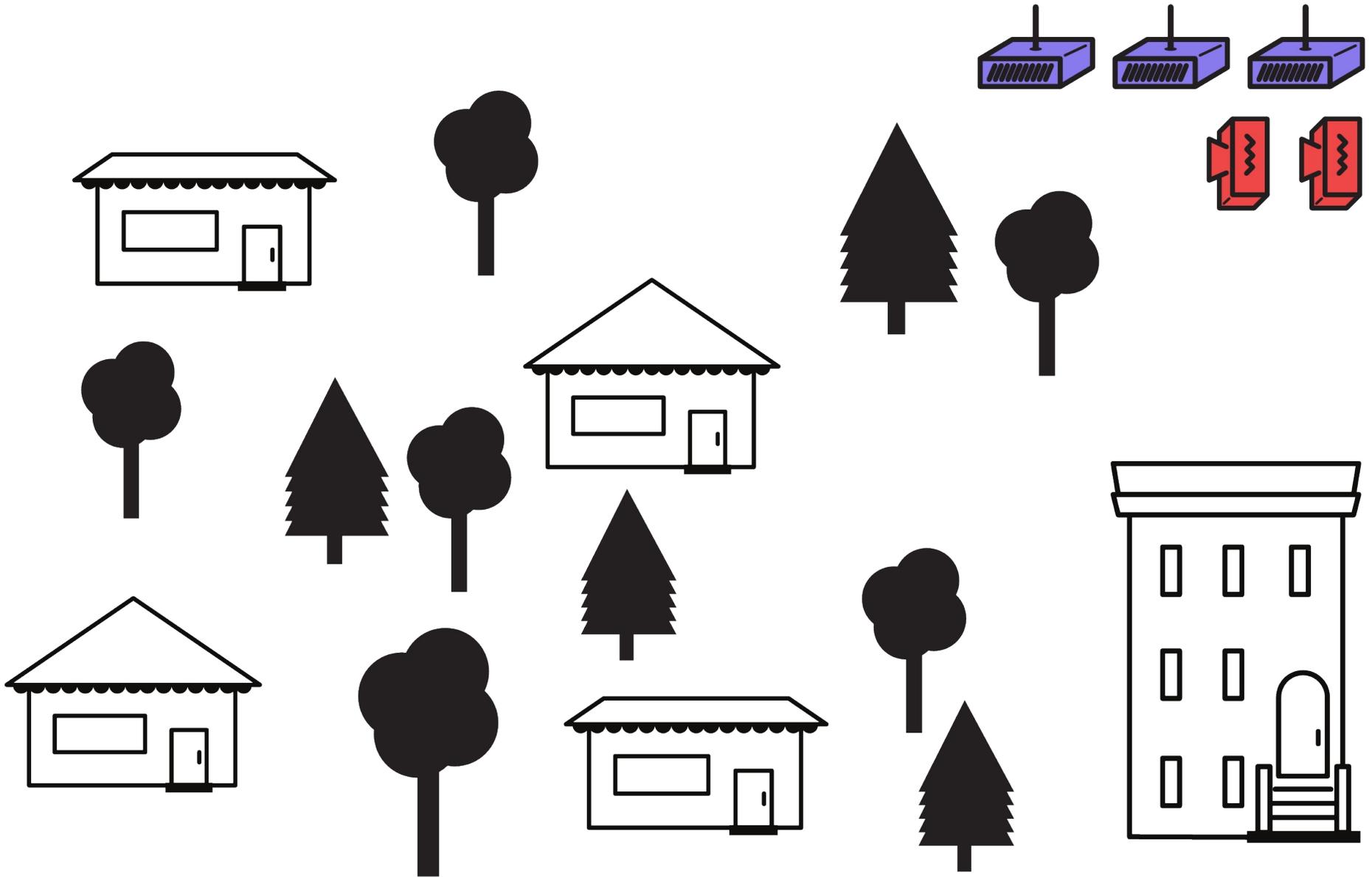
Worksheet 6: Community Radio Tower

In this scenario, the community has access to the tower hosting the local community radio station. Use this in your design to provide a high mounting point. Routers can be configured as **Access Points**, **Clients**, or **Mesh Nodes** - mark them "**A**", "**C**", or "**M**", depending on their role. Connect the routers with a solid line.
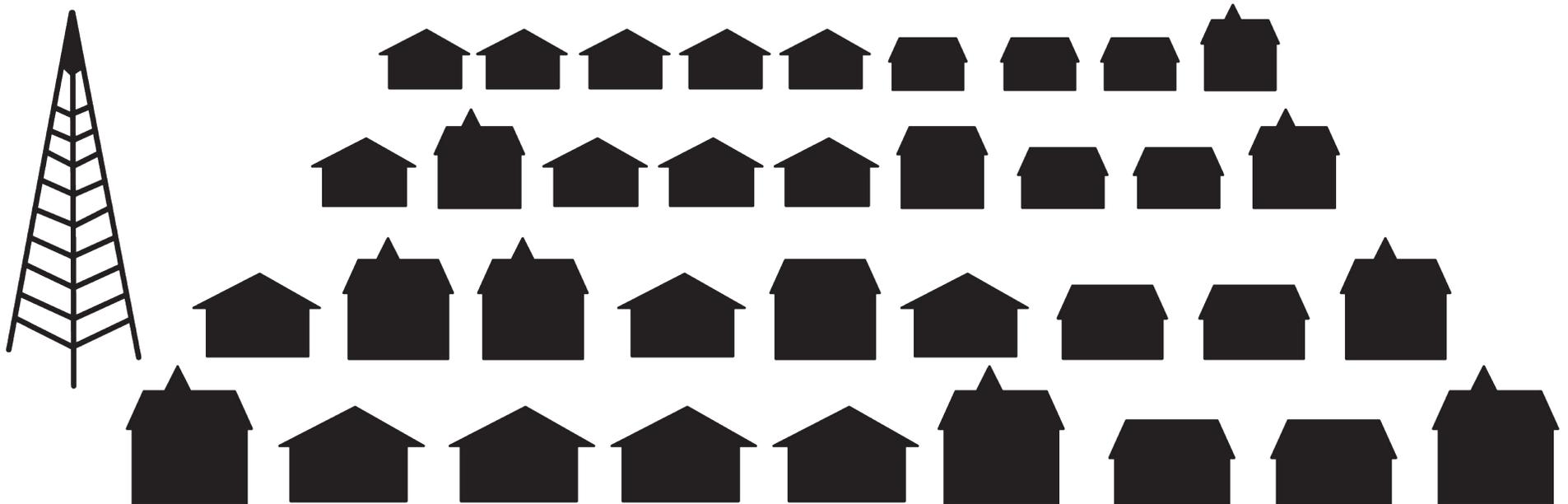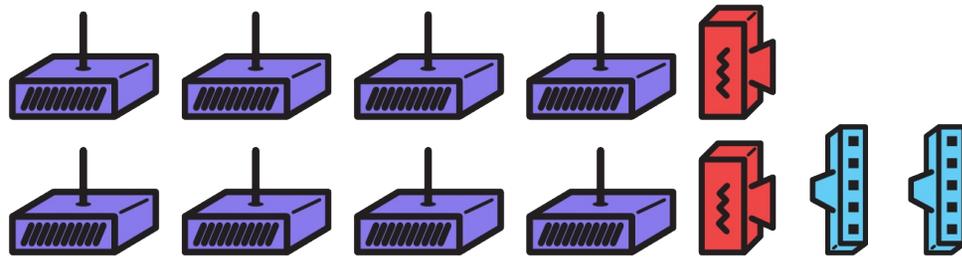
Worksheet 7: Dense buildings in a city or town

In this scenario, you have many buildings close together. Wireless signals cannot pass through buildings, so design your network to go over and around them (rooftops allow signals to pass over buildings). Routers can be configured as **Access Points**, **Clients**, or **Mesh Nodes** - mark them "**A**", "**C**", or "**M**", depending on their role. Connect the routers with a solid line.