Building Roads

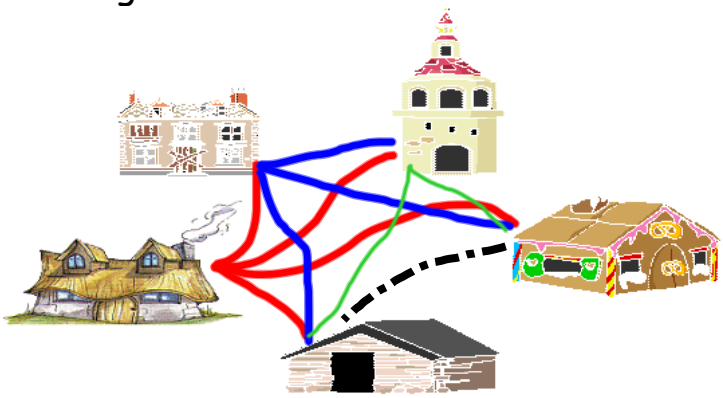
Five families are building houses in an isolated area. Roads will have to be built to connect each house with every other house.

If the families do not mind sharing roads, what is the least number of roads that need to be built so that each house is linked to every other house?

Learning and Teaching Objectives

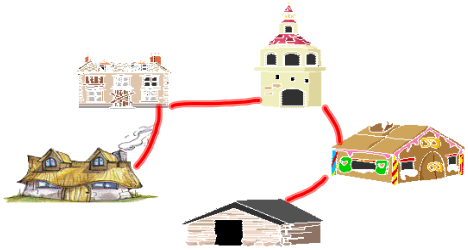
- Use drawings or annotations to help visualise the problem
- Use a systematic approach to solve the problem
- Choose and use an appropriate method of recording
- Try other possibilities to check the solution

Building Roads Solution



4 + 3 + 2 + 1 = 10 roads

Extension: more houses, look for patterns in how many roads are built, predict for larger numbers of houses



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