

Problem Solving

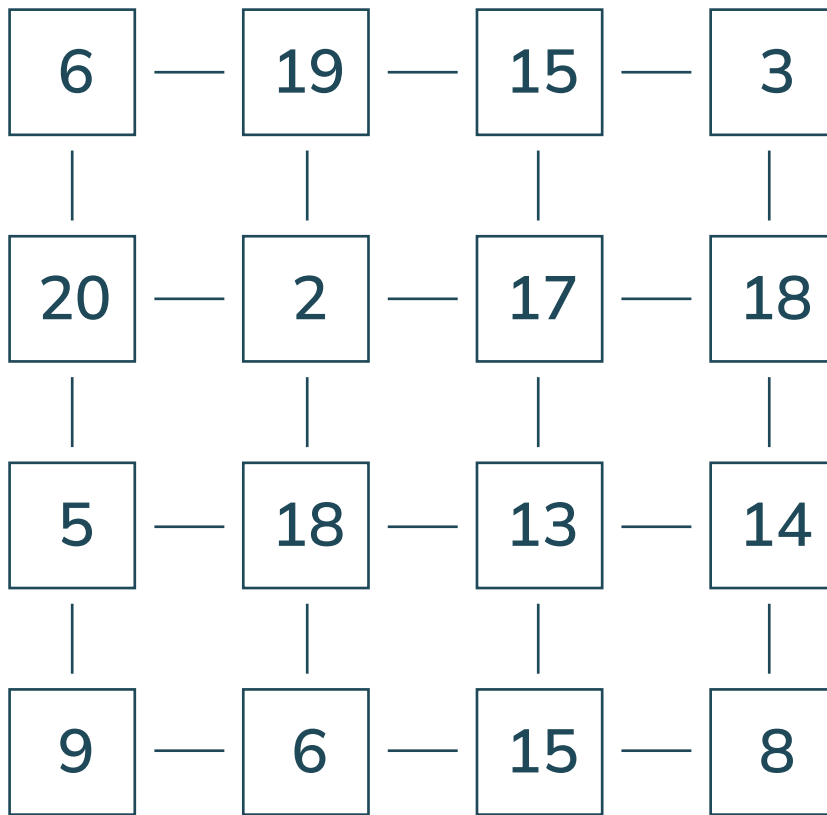
Year 9 / S3

Activity 1

Spy Sam needs to create a route through a building. Each room has one file inside that would be helpful to his mission. He has enough time to collect five files before his helicopter picks him up.

The map shows the number of enemy agents in each room.

Find the greatest and least number of enemy agents Spy Sam would meet whilst collecting five files.



Activity 2

Can you make combinations of 58, 59 and 60 enemy agents to defeat by visiting just five rooms? You can start in any room.

Problem Solving

Year 9 / S3



Activity 3

Spy Sam needs to crack some code words he has intercepted through some encrypted text messages.

There are four codes below and only three words. The codes are not written in the same order as the words. Using the code numbers, work out the following questions.

POOR

POKE

TRIP

4221

1338

4275

3184

P = ____ O = ____ R = ____ T = ____ I = ____ K = ____ E = ____

1 Find the code for the word **REPORTER**
15411351 45411354 15421851 15421351 47534231

2 Find the word for the code **4551**
PEER REEP ROPE PIKE POOR

3 Find the code for the word **TRIP**
31842 31845 31745 24138 42751

4 Find the code for the word **ROOTER**
422351 133351 122384 433584 122351

5 Find the word for the code **42751**
ROPER POKER ROTTER PORTE TRIPE