Negatively triangular

Teacher notes

Why use this resource?

This activity gives students an opportunity to apply their understanding of the equation of a straight line to solve a geometrical problem. It also encourages students to think creatively in order to produce problems of a similar nature.

Students will need to think about points of intersection and use knowledge of parallel and perpendicular lines.

Preparation

Students might use this after previously trying one of the other resources such as Straight lines or Lots of lines!

Printed copies of the Warm-up and Main problem could be useful (and possibly solutions too).

Possible approach

The Warm-up might be approached as a whole class discussion or think-pair-share. Starting possibly with a show-me response to the first question. The sharing may be whole class or groups such as 3 pairs: groups could then work collaboratively on the Main problem and extension questions. If students are fixated on one approach some prompting to think of other approaches might facilitate discussion or printed copies of the Warm-up solution could be available for students to look at in their groups.

Key questions

These are embedded in the both the Warm-up and Main problem.

Possible support

Encourage sketching and some students may find graphing software helpful.

Possible extension

Built into the Main problem.

Students might go on to look at Simultaneous squares.