Charlie has been drawing squares:


Can you use the diagram to help you work out where the centre of square 20 will be?

Can you suggest an efficient strategy for working out the coordinates of the centre of any square?

Would your strategy work if Charlie's sequence extended to the left?
$\ldots .2,-1,0,1,2,3 \ldots$.

Can you adapt your strategy to work out the coordinates of the vertices of any square?

## Alison has been drawing triangles:



Can you use the diagram to help you work out where the vertices of triangle 23 will be?

Can you suggest an efficient strategy for working out the coordinates of the vertices of any triangle?

Would your strategy work if Alison's sequence extended to the left?

$$
\ldots-2,-1,0,1,2,3 \ldots
$$

## Charlie has been drawing more squares.



He wants to know what the coordinates of the centre of square 22 b will be.
Can you use the diagram to work it out?
Can you suggest an efficient strategy for working out the coordinates of the vertices of any square?

