## AFRICAN INSTITUTE FOR MATHEMATICAL SCIENCES <br> SCHOOLS ENRICHMENT CENTRE (AIMSSEC) <br> AIMING HIGH

MORE LINE PATTERNS

a. To draw this pattern, first draw a rectangle.
b. Choose a small distance $d$ and mark this distance along the edge of the rectangle and draw a straight line from one vertex of the rectangle to this point as in Step 1.
c. Mark the distance $d$ along the next edge and draw the straight line as in Step 2.
c. Repeat this construction drawing straight lines spiralling inwards, marking the distance $d$ along the next straight line that you will meet, as shown in Steps 3 and 4.


Draw these patterns or create your own.


## HELP

Each time you repeat the 4 steps as described you draw a rectangle. Each rectangle is smaller than the previous one and rotated clockwise.

See https://aiminghigh.aimssec.ac.za/grades-7-to-10-constructions-with-lines/

## NEXT

There is no end to the variety of patterns that you can design and create in this way. The curves that appear are called envelopes in mathematical language.

