## DEFINING A LINE IN A PATTERN



Four lines are required for the pattern shown below
The horizontal lines have different spacing, so two definitions are required, but the spacing between the different coloured lines is the same. The difference between the two is only the Y (vertical) offset.

The vertical lines have the same spacing in the $X$ direction, but are different lengths, so two definitions are required. They start at different places and have different lengths for the lines and spacing. The spaces in the one are the same as the lines in the other

| Angle |  | 0 | 0 | 90 | 90 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Origin | $\mathbf{X}$ | 0 | 0 | 0 | 225 |
|  | Y | 0 | 100 | 0 | 100 |
| Shift |  | 0 | 0 | 0 | 0 |
| Offset |  | 300 | 300 | 450 | 450 |
| Dash |  |  |  | 100 | 200 |
| Space |  |  |  | -200 | -100 |



Blue lines
X

Angle is horizontal (0), starts at 0,0 , consecutive lines start at the same place ( $Y$ axis), consecutive lines are at 300 mm spacing, they are continuous so no dashes or spaces.
Red lines
Angle is horizontal ( 0 ), starts at 0,100 ( 100 mm from the X axis), consecutive lines start at the same place (Y axis), consecutive lines are at 300 mm spacing, continuous so no dashes or spaces
Green lines
Angle is vertical (90), starts at 0,0, consecutive lines are at the same distance from the $Y$ axis, consecutive lines are at 450 mm spacing, the lines are 100 mm long and the spaces are 200 mm

Magenta lines
Angle is vertical (90), starts at 225,100 (225mm from the $Y$ axis), consecutive lines start at the same place, consecutive lines are at 450 mm spacing, the lines are 200 mm long and the spaces are -100 mm (spaces are always a negative number to indicate pen up).

