

USE OF A COMPUTER

Name:

Assessment Criteria: Devise instructions for a computer to generate and transform shapes and paths

You will need access to a computer with software that enables you to carry out transformations (e.g. Autograph, Geometer's Sketchpad, Geomat)

1. An obedient ant is standing at the point marked with a 'x', and is facing the top of the page. Follow the instructions to trace a path.

- Forward 3 cm
- Right 120°
- Forward 3 cm
- Right 120°
- Forward 3 cm

x

i) What is the name of the shape you have created?

ii) What is the angle that the ant would need to turn through in order to be facing the same direction as it was to start with?

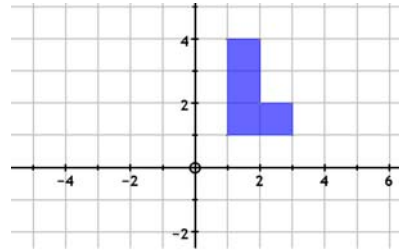
_____°

2. Write a set of LOGO instructions for a computer to generate a pentagon

3. What is the same and/or different about:

- | | | | |
|--------------|--|-----|--------------|
| ▪ Forward 90 | | and | ▪ Right 90 |
| ▪ Right 90 | | | ▪ Forward 90 |

4. Using computer software that enables you to carry out transformations, construct an 'L-shape' exactly the same size and position as the one on the right:



- i) Reflect the 'L-shape' in the y-axis
- ii) Rotate the original 'L-shape' 90° clockwise about the point (0,0)

Print out a copy of your work and attach it to this sheet

Overall, I think my success level is:

Low High

Q	USE OF A COMPUTER	☺	☹
	I can interpret LOGO-style instructions for a computer		
	I can devise LOGO-style instructions for a computer		
	I can use a computer to carry out transformations		
	<i>I can solve problems and carry through substantial tasks by breaking them into smaller, more manageable tasks, using a range of efficient techniques, methods and resources, including ICT; give solutions to an appropriate degree of accuracy</i>		

I need to practise ...