Name_____ Date_____

<table>
<tr><td>Geometry
Unit 1 Line Master 8a</td></tr>
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Testing an Artefact and Providing Feedback

When artefacts such as computer applications are created, a design process is followed. Part of this process involves testing and troubleshooting. Throughout the design process, feedback is usually provided by the user of the computer application.

Feedback helps to ensure all needs are considered during the design process.

1. Check out this simple application and the design and feedback process that was done during its creation.

Purpose of the application	A computer programmer was asked to create a simple application that determines if an angle is right, obtuse, acute, or reflex.

Planning	The computer programmer starts by writing an algorithm.
	
	``
	Ask the user for the angle
	If the angle is equal to 90 then
	    Say: It is right
	If the angle is greater than 180, then
	    Say: It is reflex
	If the angle is greater than 90, then
	    Say: It is obtuse
	If the angle is less than 90, then
	    Say: It is acute
	``

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Testing an Artefact and Providing Feedback (cont'd)

Creating the Application	The computer programmer creates this application. https://scratch.mit.edu/projects/873766910/editor/
Testing the Application	The computer programmer tests the application and asks for feedback from the user. The user provides this feedback: • There seems to be an error. When I run the application, it says that the angle is obtuse even if it is greater than 180. It should say an angle greater than 180 is reflex. • I also suggest changing the background and the sprite so that it is not a blank background with a cat.
Troubleshooting the Application	The computer programmer troubleshoots and alters the code so that the application works. The programmer adjusts the order in the code, as they made an error in checking if the angle was obtuse before checking if the angle was reflex. The user tests the application again and it works! Here's the completed application: https://scratch.mit.edu/projects/873770291/editor/

Name_____ Date_____

Testing an Artefact and Providing Feedback (cont'd)

2. A computer application has been written to classify triangles according to side lengths. Test out the application and provide feedback to the computer programmer.

Purpose of the application	A computer programmer was asked to create an application that determines if a triangle is equilateral, isosceles, or scalene.

Planning	The computer programmer starts by writing an algorithm.
	
	``
	Say: Your triangle will be classified
	according to number of equal sides.
	Ask: How many equal sides does the
	triangle have?
	If the number of equal sides is greater
	than 3, then
	     Say: It can't be a triangle!
	Otherwise…
	     If the number of equal sides is equal
	to 0, then
	          Say: Scalene!
	     If the number of equal sides is 2,
	then
	          Say: Isosceles!
	     If the number of equal sides is 3,
	then
	          Say: Equilateral!
	``

Name_____ Date_____

Testing an Artefact and Providing Feedback (cont'd)

Creating the Application	The computer programmer creates this application. https://scratch.mit.edu/projects/873771292/editor/
Testing the Application	The computer programmer tests the application and asks for feedback from users. Enter your feedback here:
Troubleshooting the Application	The computer programmer troubleshoots and alters the code so that the application works. Indicate how the code had to be altered in order to work properly: The user tests the application again and it works! **Optional Challenge:** Alter the code in the Scratch application to show what the final product should look like, based on the feedback you provided.