

Machine Code Mario.

Worksheets



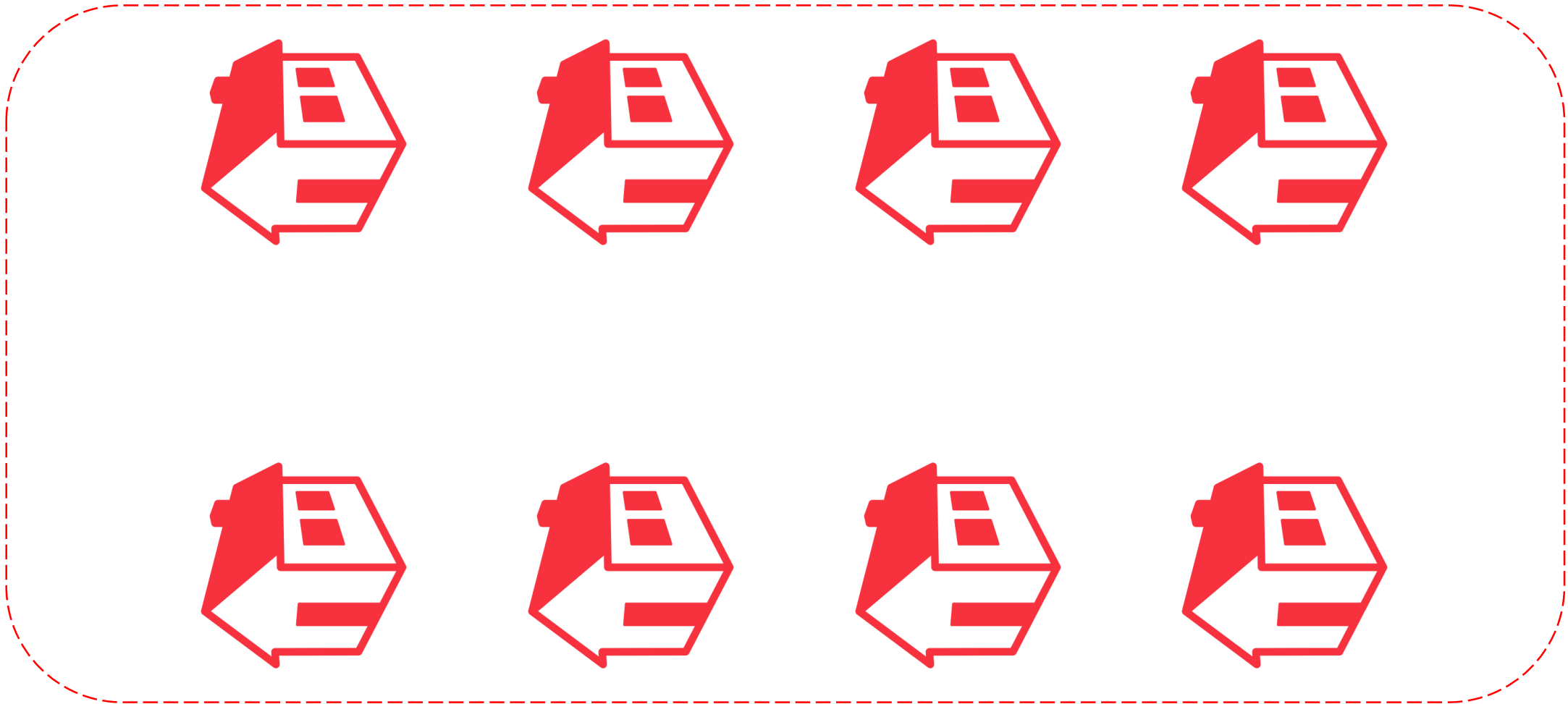
These worksheets should be used to complement the plugged activities in the Machine Code Mario workshop .



Machine Code Mario.

Activity BU1

Use the place value card below to help you with your conversion from binary to denary



DIGITAL SCHOOLHOUSE
together with



Machine Code Mario.

Activity BU1

Use the place value card below to help you with your conversion from binary to denary



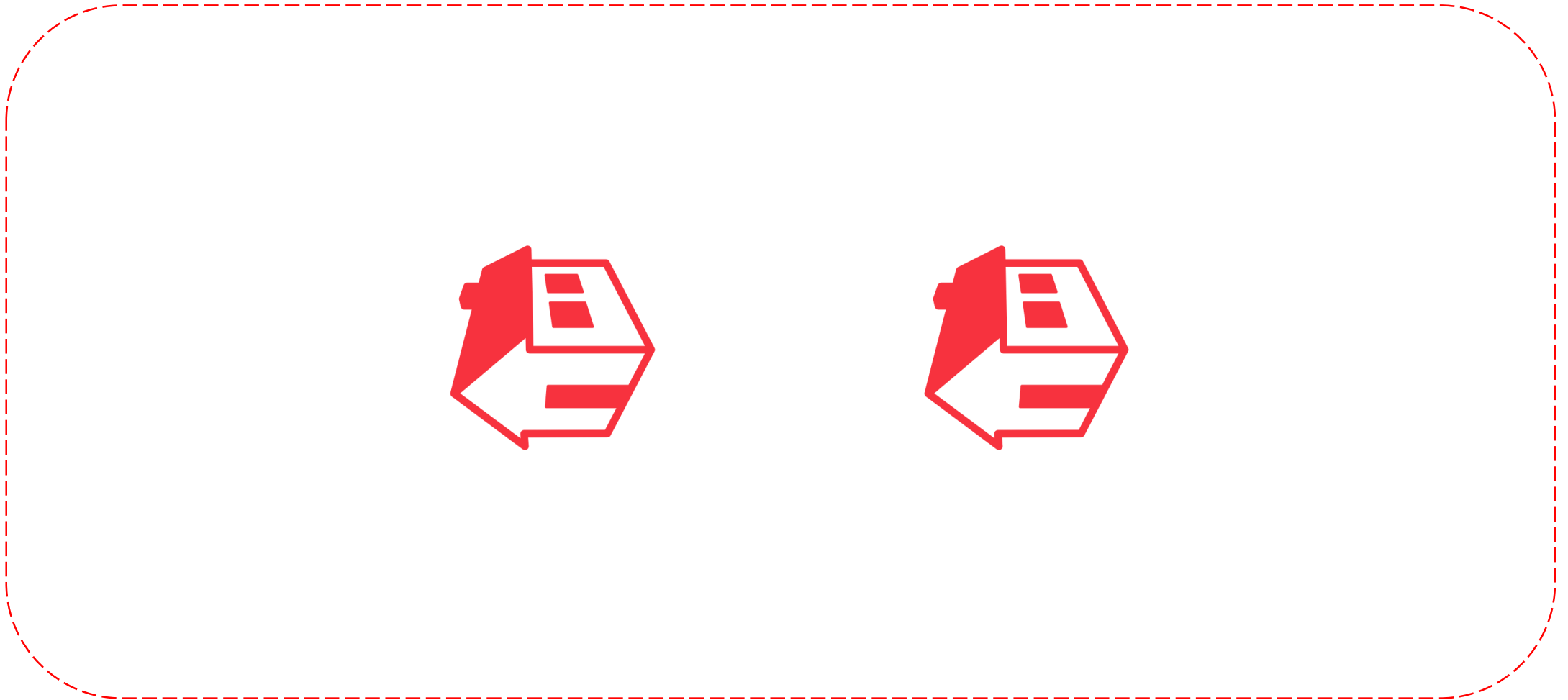
DIGITAL SCHOOLHOUSE
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Machine Code Mario.

Activity BU1

Use the place value card below to help you with your conversion from binary to denary



Machine Code Mario.

Activity BU1

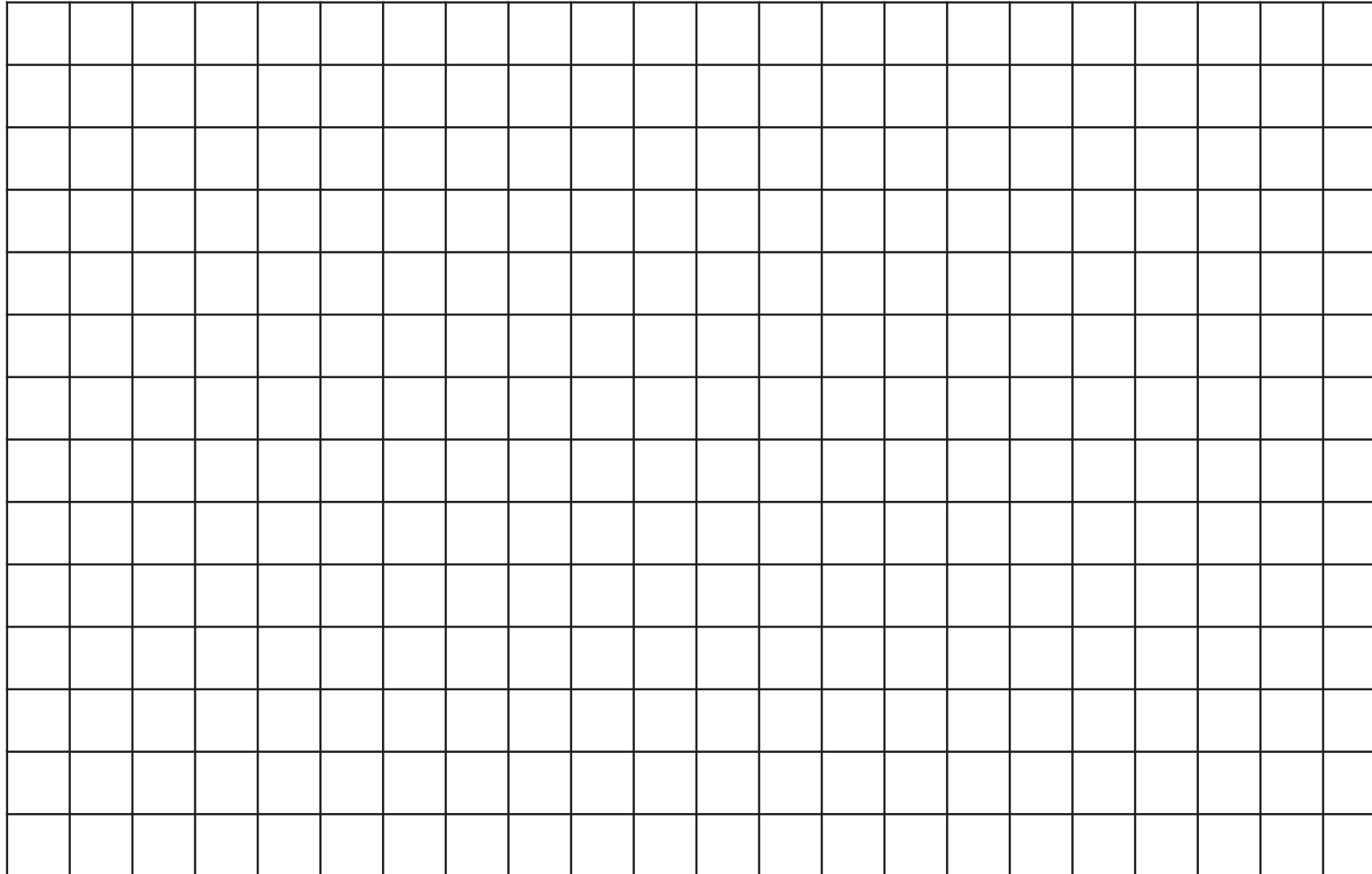
Use the place value card below to help you with your conversion from binary to denary



Machine Code Mario.

Activity B2 | I3 | A2 | A4

Use the grid below to help you plan your Machine Code Mario course



Machine Code Mario.

Activity BU1 | IU1 | IU2

Use the place value mat below to help you with your conversion from binary to denary

8	4	2	1



Machine Code Mario.

Activity BU1 | IU1 | IU2

Use the place value mat below to help you with your conversion from binary to denary

128	64	32	16



Machine Code Mario.

Activity B3

Complete the following table to thoroughly test your Super Mario Maker 2 course.

Type of testing	Black box testing		
Test number	What is being tested	How it is being tested	Pass / Fail
1	Uses Super Mario Maker 2	Open the game and the required course and check that it loads correctly	
2	Allows the user to move Mario	Move Mario around using the Joy-cons on the Switch	
3	Displays the instructions for the required binary conversion	Check to see that the instructions to create the number that the player should be converting to binary is displayed at the beginning of the course	
4	Uses mystery boxes to represent the binary number	Check that the game has a row of at least 4 mystery boxes	



Machine Code Mario.

Activity B3

Complete the following table to thoroughly test your Super Mario Maker 2 course.

Type of testing	Black box testing		
Test number	What is being tested	How it is being tested	Pass / Fail
5	Mystery boxes that need to be opened to represent the number have coins inside	Open the boxes needed to represent the binary number and make sure that they all have coins inside	
6	Mystery boxes that should not be opened have lava bubbles inside	Open the boxes that are not needed to represent the number and check that they all have lava bubbles inside	
7	The course clear condition is set at the right number of coins	Try to complete the game after opening all the required boxes and walk through the gate at the end of the course	
8	You can't clear the course if you haven't attempted the conversion	Try to complete the game without opening any boxes and walk through the gate at the end of the course	



Machine Code Mario.

Complete the following table to thoroughly test your Super Mario Maker 2 course.

Type of testing	Destructive testing
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Test number	What is being tested	How it is being tested	Pass / Fail
1	The game restarts if Mario leaves the stage	Try to make Mario leave the play area, if he does the game should restart	
2	The course clear condition is set at the right number of coins	Try to make Mario complete the course by entering the gate at the end of the course without the correct number of coins	
3	The game restarts if Mario is hit by a lava bubble	Deliberately open a mystery box containing a lava bubble and check that Mario dies and the game restarts if he is hit by it	
4	Can't move left at the start	Try to move Mario left at the beginning of the course	



Machine Code Mario.

Activity I4 | I5 | A5 | A6 | A7

Below you will find the original user requirements for the Machine Code Mario course, use them to help you write your test plans for testing your course.

User requirements

1. Uses Super Mario Maker 2
2. Allows the user to move Mario
3. Displays the instructions for the required binary conversion
4. Uses mystery boxes to represent the binary number
5. Mystery boxes that need to be opened to represent the number have coins inside
6. Mystery boxes that should not be opened have lava bubbles inside
7. The course clear condition is set at the right number of coins
8. You can't clear the course if you haven't attempted the conversion



Machine Code Mario.

Complete the following table to thoroughly test your Super Mario Maker 2 course.

Type of testing	Black box
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Test number	What is being tested	How it is being tested	Expected outcome	Actual outcome



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Type of testing	Destructive
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Test number	What is being tested	How it is being tested	Expected outcome	Actual outcome



Machine Code Mario.

Complete the following table to thoroughly test your Super Mario Maker 2 course.

Type of testing	Black box
-----------------	-----------

Test number	What is being tested	How it is being tested	Expected outcome	Actual outcome



Machine Code Mario.

Complete the following table to thoroughly test your Super Mario Maker 2 course.

Type of testing	Black box
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Test number	What needs to be fixed	How to fix it	Complete



Machine Code Mario.

Complete the following table to thoroughly test your Super Mario Maker 2 course.

Type of testing	Destructive
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Test number	What is being tested	How it is being tested	Expected outcome	Actual outcome



Machine Code Mario.

Complete the following table to thoroughly test your Super Mario Maker 2 course.

Type of testing	Destructive
-----------------	-------------

Test number	What needs to be fixed	How to fix it	Complete



Machine Code Mario.

Complete the following table to thoroughly test your Super Mario Maker 2 course.

Type of testing	Acceptance / Beta testing
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Test number	What is being tested	How it is being tested	Expected outcome	Actual outcome



Machine Code Mario.

Complete the following table to thoroughly test your Super Mario Maker 2 course.

Type of testing	Acceptance / Beta testing
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Test number	What needs to be fixed	How to fix it	Complete

