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Q21.

a) i)

Number of Trains	Train	Output
0	~~1~~	display Train ID at X, Y
	~~2~~	display Train ID at X, Y
	~~3~~	display Train ID at X, Y
	~~4~~	display Train ID at X, Y
	⋮ infinitely	
1	1	—
2	~~1~~	display Train ID at X, Y
	2	—

ii) The algorithm does not work because the variable Train which is use ~~as~~ in ~~the te~~ the terminating codition for the while loop is initialised to 1. This means, as can be seen from the test data, that when the number of trains is 0 it incorrectly runs the loop, giving a location of train output. Not only this, but the Train variable continues to increment each time, so it is never 0 and so the loop runs indefinitely never reaching the terminating condition and giving an infinite output of train locations. Equally, when the numbe of trains is 1, as the desk check shows, ~~the~~ when train is initialized to 1 the ~~for~~ ~~loo~~ number of trains= train and so the ~~loop~~ while loop is never executed, thus giving no output when it should in fact give the location of one train. Also, the same problem occurs when the number of trains is 2 in that it only outputs the location of one train Also in the Read location module, the values for X and ~~[illegible]~~ Y are set before they are even determined by recieving the message. And Location X & Y ~~should~~ should be set to X & Y as opposed to the other way round.

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iii) • ~~Train~~ the Train variable should be initialised to ~~2~~ ~~in code~~ 0 in code line 3 to ensure the loop runs correctly.

• In submodule Read Location in lines 12 & 13,
Location X = X
Location Y = Y
not the other way around as it is shown. Also, these two lines should be placed AFTER the Recieve Message (X, Y) submodule, so their values are correct.

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b.(i) In this scenario, there is a breach of copyright. A team member has stolen a piece of code from another manufacturer, and passed it on to his, fellow team members as his own code. He has denied the original author their right to authorship, stealing their intellectual property.

Furthermore, it was taken from a closed website, meaning that it wasn't available for download normally. Thus, the member has illegally gained access to another company's server, invading their privacy, and trespassing on their property.

Also, by not telling the rest of his team the source he or she is unfairly putting ~~them~~ at risk of further breaching ethics and law, as the code is being pooled and so they may use the code thinking that they are allowed to. This is highly irresponsible of the offending member.

(ii) Management can ensure that the team carries out their duties in a responsible manner by ensuring that all team members regularly have their work checked by the project leader. By getting a more senior, experienced team member to ~~double check~~ validate the source and integrity of all work, the software team can be assured to be carrying out their responsibilities.

Another method would be a structured walkthrough. Each team member would step the other members through the work they have completed. In addition to improving the consistency and quality of the final product, this peer evaluation will discourage and prevent any dishonest practices.

A project leader can also assign tasks to each team member according to their abilities. If a team member is more than capable of solving the problem themselves, then they are hardly likely to go and steal someone else's code. Improper allocation of tasks could result in this breach of developer responsibilities