



PAPER 1 EXAM RESOURCE PACK 2025

for A Level AQA Computer Science

PYTHON³ EDITION

- DIGITAL RESOURCE -

This pack includes paper versions of the electronic files.

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Printouts of electronic resources (for reference)

- Code Breakdown (9 pages)
- Training Game Expressions (1 page)
- UML Class Diagram: Complete (1 page)**
- UML Class Diagram: Activity (1 page)*
- Theory Questions: Non-write-on Version (3 pages)
- Theory Questions: Write-on Version (6 pages)
- Coding Tasks (21 pages)
- Additional Tasks (Extension) (2 pages)
- Theory Questions: Mark Scheme (3 pages)**
- Coding Tasks: Mark Scheme (47 pages)**
- Electronic Answer Document (EAD) (3 pages)

** Note there are also electronic copies of the UML Diagrams ('Complete' & 'Activity' versions) provided.*

*** The electronic PDF versions of these files are password-protected, so that students can only access them with your permission. Passwords can be found in the Teacher's Introduction on page iv.*

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The resources here are provided as an interpretation of the pre-release material.

The author does not have any special knowledge of what to expect on any particular exam.

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Teacher's Introduction

Target Clear is a single-player game which is a cross between the 1980s game *Space Invaders* and the TV game show *Countdown*.

The user is given a list of five numbers which they can use to create a mathematical expression. The game has a list of 20 target numbers. On each turn, the user enters a mathematical expression which they are aiming to evaluate to one of the targets in the Targets list. This removes the target from the Targets list. The first five elements in the Targets list are blank – giving the user some empty space. However, after each turn the list moves one index to the left, slowly moving the targets into that empty space. If a target gets all the way to the left-hand side of the list, the game is over.

The expression entered by the user can only use the mathematical operators +, -, /, *. The expression cannot include brackets but will correctly interpret the precedence of the accepted operators.

If the user enters an expression which evaluates to one (or more than one) target in the Targets list, that target is removed, and points are awarded to the user. The list then moves to the left.

If the user enters an expression which does not evaluate to one of the targets in the Targets list, points are deducted from the user and the list moves to the left.

This resource aims to help you get to grips with and prepare for the A Level Paper 1 examination for summer 2025, which is partly based on the **Target Clear** pre-release material.

DIGITAL RESOURCE

Once you have downloaded the files for this resource via (zzed.uk/ProductSupport) you will have access to the following:



	TargetClear	this folder contains all of the content (PDF/DOCX) accessible via a HTML interface
	Passwords.txt	for teacher use – this file contains all of the passwords for the protected PDFs (also listed below)

* PRINTED COPIES OF ALL THE MATERIALS IN THIS DIGITAL RESOURCE PACK ARE INCLUDED FOR REFERENCE.

Installation: Extract the files from the downloaded ZIP file and move the entire TargetClear folder onto a network location that is accessible for students, and provide them with a shortcut to the index.html file. All content can be accessed from this page.

Passwords: All of the PDFs accessible via the *Solutions* web page are password-protected, so that students can only access them with your permission. Each password is a four-digit code, as follows:

	py02a-UML-Diagram-Complete.pdf	2875
	py06-TheoryQuestions-MS.pdf	4761
	py07-CodingTasks-MS.pdf	3954

Should you wish to give students access to ALL protected-PDFs, the master password for all files is: **zz2ghc4**

The resource pack consists of the following sections:

- **Code breakdown:** a detailed technical overview of the skeleton program, describing in detail each class and method in turn – including their purpose/function, parameters and return values. Note that this is intended as a helpful reference document only, and not as a substitute for exploring the code in a practical manner.
- **Training game expressions:** a list of expressions which evaluate to all the values in the **Targets** list using the values in the **NumbersAllowed** list. Some of these expressions use operators which are not valid in the base version of the pre-release code but will give students an opportunity to develop extension solutions and test them.
- **UML class diagram activity:** requires you to study the program and fill in the gaps with the missing class/method names, data types, associations and access levels.
- **Video:** a quick overview of the **Target Clear** game mechanics – intended as a visual aid to accompany the notes in the official AQA pre-release material.
- **Theory questions:** designed to test your understanding of the skeleton program. These questions require access to the program, but no modifications need to be made to the program. Write-on (with answer lines) and non-write-on versions are available.
- **Coding tasks:** there are 19 modification tasks to test your programming skills – as well as an additional 13 modification ideas that you may also want to try as extension tasks.
- **Solutions / Mark Schemes** for: UML Diagram Activity, Theory Questions, and Coding Tasks.

This resource is intended to supplement your teaching only. **Please read full disclaimer (p. iii) before using it.**