Answer Keys & Grading Notes

Objective-aligned exemplars, full-credit models, and the mistakes to watch for. **Do not distribute to students.**

True-up step: the objective sections below are built from the AP learning objectives. Paste your real Code.org prompts into chat and I'll fill exact question-by-question keys. The *AI-Proof Worked Answers* section matches the handwritten assignment exactly.

A · Tracing conditionals

Give full credit for correct final value AND correct branch reasoning.

Full-credit exemplar: For if(x>10){...}else{...}: state which branch runs for the given x and the resulting value. Show the comparison result (true/false).

Common mistakes: Guessing the branch without evaluating the Boolean; off-by-one on > vs >=; running both branches.

B · Functions & abstraction

Full-credit exemplar: A procedure groups steps under a name so it can be reused and the details hidden — that's abstraction. Full credit names a parameter's role and why reuse helps.

Common mistakes: Confusing defining a function with calling it; thinking parameters are outputs; no mention of reuse/abstraction.

AI-Proof Worked Answers — Conditionals & Functions — By Hand

Grade the handwritten sheet against these. Item numbers match the assignment.

Item	Correct answer
`1) x = 3`	"small"
`1) x = 10`	"medium" (10>10 false, 10>5 true)
`1) x = 15`	"big"
`2) timesTwo`	function timesTwo(n){ return n*2; } then timesTwo(3); timesTwo(5);
`4) bug fix`	score > 60 should be score >= 60