

Writing Classes — Handwritten Class FRQ

Name: _____ Period: _____ Date: _____

AP objective: MOD-2.A/2.C Points: 30

Why handwritten, in class: this replaces a typed task AI can complete. Work every item by hand and **show all your steps** — no AI, phones, or notes. A correct answer with no work earns half credit; the work is what proves it's yours.

Complete each item by hand — show all work

1. Write the complete Student class by hand, following the spec — 16 pts

GIVEN

Write class Student with:

- private fields: String name, int gpaTimes100
- constructor: Student(String name, int gpaTimes100)
- accessor: getName()
- mutator: setGpaTimes100(int g)

This mirrors AP FRQ #2. Reproduce it entirely by hand — private fields, constructor with this.

2. Explain why the instance variables are private (encapsulation) — 8 pts

3. Add a method getGpa() that returns the GPA as a double (gpaTimes100 / 100.0) — 6 pts

Oral defense (teacher — 60 sec)

Student answers one cold question aloud before grading. A student who did their own work can answer instantly; a copied one can't. Strong OK Weak

Scoring (30 pts)

Criterion	Pts	Earned
Class compiles (fields/ctor/accessor/mutator)	16	
Encapsulation explained	8	
Computed method	6	
<i>Gate</i> : passed oral defense (can explain the work aloud)	req'd	<input type="radio"/> Y <input type="radio"/> N
Total	30	

Integrity gate: if the student can't explain their work aloud, cap the score at 50% and require a resubmit.