

# Primitive Types — Handwritten Expression FRQ

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

AP objective: CON-1.A/1.B Points: 20

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**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. Evaluate each expression; show each step and mark whether the result is int or double — 8 pts

GIVEN

(a)  $9 / 2$

(b)  $9 \% 2$

(c)  $9.0 / 2$

(d)  $17 \% 5$

(e) (double)  $9 / 2$

(f)  $7 / 2 * 2$

2. Write a Java expression that averages three ints a, b, c as a double — 6 pts

Watch the integer-division trap — you must cast.

3. Explain, in your own words, why  $7/2$  is 3 but  $7.0/2$  is 3.5 — 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 (20 pts)

Criterion	Pts	Earned
Expressions evaluated w/ work	8	
Average-as-double correct	6	
Explanation	6	
<i>Gate:</i> passed oral defense (can explain the work aloud)	req'd	<input type="radio"/> Y <input type="radio"/> N
Total	20	

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