

K201-Quiz 2B

(2 pts) 1. Indicate and explain errors (if any) in the following FORTRAN arithmetic statement:

```

INTEGER= -(2*BAL-1./-BIL(6.+3.5A)
    ↑       ↑       ↑   ↑↑   ↑
    1.     2.     3.  4.5. 4.
    
```

1. too many characters in variable
2. missing decimal point
3. operations not separated
4. missing operation
5. unequal number of parentheses

(4 pts) 2. Translate the following mathematical expression into an equivalent FORTRAN expression:

$$\frac{(x^3 - 3xy) \sqrt{x-y}}{x+y} + 1 \quad (x**3 - 3.*x*y)*(x-y)**.5/(x+y**2) + 1.$$

(6 pts) 3. Evaluate the following sequence of FORTRAN statements, given SOM=3.:

```

PART=(3.5-SOM/2.)*2-1. 3.
EX =(PART**2-2.*SOM)/3.+1. 2.
K2R =(SOM/PART+1.)/(EX-1.)+1.5*PART 6
    
```

(8 pts) 4. Consider the following card layout:

Card Columns	Description	Form	Variable name
3-11	Student ID	Integer	ID
20-37	Name	Alphanumeric	N1,N2,N3,N4,N5
38	Class code	Integer	IC
44-46	GPA	X^XX	GPA

- a) define variable names
- b) write FORTRAN statements necessary to read a card with given layout.

↓ ↓

1	5	6	7	10	15	20	25	30	35	40	45	50	55	60
	READ(5,6) ID, N1, N2, N3, N4, N5, IC, GPA													
6	FORMAT(2X, I9, 8X, 4A4, A2, 4I, 5X, F3.2)													