

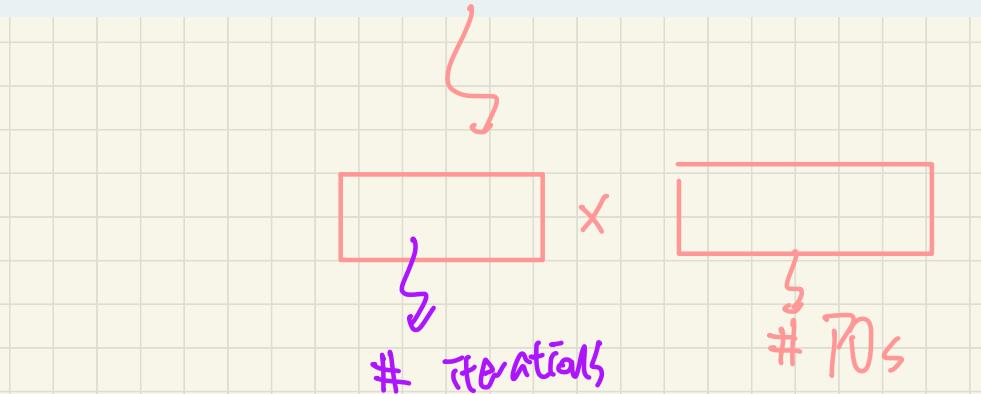
Review Q & A - Apr. 16

Final Exam

Consider the following fragment of Java code:

```
1 public int triangularSum (int[] a, int n) {  
2     int sum = 0;  
3     for (int i = 0; i < n; i++) {  
4         for (int j = i; j < n; j++) {  
5             sum += a[j];  
6         }  
7     }  
8     return sum;  
9 }
```

For each iteration of the outer loop (between Line 3 and Line 7), how many primitive operations are executed from Line 5? Choose the best answer.



$$\frac{1}{n} \sum_{i=1}^{n-1} i = \frac{n(n-1)}{2}$$

$$i = 0, 1, 2, \dots, n-1$$

$$j = i, i+1, \dots, n-1$$

$$[i, n-1]$$

$$\begin{aligned} & (n-1) - i + 1 \\ & = [n-i] \end{aligned}$$

```

1 int x = 0; ①
2 for(int i = 0; i < n + 1; i++) { ②
3     for(int j = i + 1; j < n - 1; j++) { ③
4         x += i * j; ④
5     } ⑤
6 } ⑥
    x = x + i * j ⑦
        ↘ Pos for each value of j

```

$i =$

0
1
2
.
;
n

true

false

$(n+1)$

$z \cdot (n+1)$

$2n + 4$

singleton tree

$n=0$



root -

↓
complete and full