

Class Activity 1 S24

Calculate the exact count of operations by defining and calculating every step clearly. No false assumption is needed. For every outer loop iteration, do the separate calculation.

```
int x = 10, y = 15, z = 20, count = 10, i, k ;  
  
for (i = 16; i <= 36; i = i + 4) {  
  
    if (i % 2 == 0) {  
  
        count = x;  
  
        for (k = 0; k<5; k++) {      count = count + 1;      }  
  
    }  
  
    if (i % 8 == 0) {  
  
        x = count;  
  
        for (k = 5; k > 0; k = K - 1) {      count = count - 1;      }  
  
    }  
  
}
```

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```
int x = 10, y = 18, z = 17, count = 0, i, j;  
for (i = 10; i <= 100; i = i * 2) {  
    if (count % 3 == 0) count = y;  
    if (count % 4 == 0) count = z;  
    if (count % 2 == 0) count = x;  
    for (j = 1; j <= count; j = j + 2) {      count = count - 1;      }  
}
```

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```
int x = 12, y = 10, z = 17, count = 20, i, k ;  
  
for (i = 11; i <= 40; i = i + 4) {  
  
    if (i % 3 == 0) {  
  
        count = x;  
  
        for (k = 0; k < 5; k++) {      count = count + 2;      }  
  
    }  
  
    if (i % 5 == 0) {  
  
        count = z;  
  
        for (k = 5; k > 0; k = K - 1) {      count = count - 1;      }  
    }  
    x = count;  
}
```