

A Collection, BIRDWEIGHTS



Task 1

Describe what the following pseudocode is attempting to do:

```
BIRDWEIGHTS.resetNext()  
  
count = 0  
  
loop while BIRDWEIGHTS.hasNext()  
  
    x = BIRDWEIGHTS.getNext()  
  
    ff x%2== 0  
  
        count = count + 1  
  
    end if  
  
end loop
```

Task 2

Describe what the following pseudocode is attempting to do:

```
int x = 0

if NOT BIRDWEIGHTS.isEmpty()

    BIRDWEIGHTS.resetNext()

    loop while BIRDWEIGHTS.hasNext()

        x = x + 1

    end loop

    output x

end if
```

Task 3

Describe what the following pseudocode is attempting to do:

```
BIRDWEIGHTS.resetNext()  
  
loop i from 0 to 9 //this is a for loop in IBDP pseudocode!  
    num = rand(1,10)  
    BIRDWEIGHTS.addItem(num)  
end if  
  
BIRDWEIGHTS.resetNext()  
  
loop while BIRDWEIGHTS.hasNext()  
    output BIRDWEIGHTS.getNext()  
end if
```

Task 4

A **collection**, BIRDWEIGHTS, exists.

A program is intended to analyse the collection and populate an **array**, heavyBirds, with all weights in the collection that are greater than 8.

For example, if BIRDWEIGHTS contains the following values:

7	6	9	9	10	7	3
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Then heavyBirds will finally contain

9	9	10				
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pre-condition: heavyBirds has already been initialized to an appropriate length

post-condition: heavyBirds will be populated with values without gaps eg this will never happen:

		9	9	10		
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Implement this program:

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Task 5

Describe the purpose of each collection **method**:

.resetNext()	
.hasNext()	
.getNext()	
.isEmpty()	
.isFull()	
.addItem(item)	