

## Solutions to Recap Exercises 1

Q1

- (a) (i)  $X * X * X - 3 * Y$   
 (ii)  $(X * A - Y) / (Y - 2 * Z)$   
 (iii)  $(X - 1) * (X - 1) / (Y * Z)$   
 (iv)  $Y * Y * Y - X * X$
- (b) (i) Name Flojo <newline>  
 (ii) <tab>Speed 12  
 (iii) Name FlojoAverage 11
- (c) (i) true && 12 > 10 && 5 < 6  
 true && true && true  
 true
- (ii) ((c < 13 && b != a) || (c != (b + 2)))  
 ((14 < 13 && 12 != 3) || (14 != (12 + 2))) We are given that a = 3, b = 12  
 and c = 14  
 ((false && true) || (14 != 14))  
 false || false  
 false

Q2

(i)

	i	n[i]	n[i] > x	x	n[i] < y	y	Output
Initialisation of variables (first 4 lines of code)	0	43		43		43	-
1 <sup>st</sup> run through loop	1	45	true	45	false	43	45,43
2 <sup>nd</sup> run through loop	2	12	false	45	true	12	45,12
3 <sup>rd</sup> run through loop	3	54	true	54	false	12	54,12

(ii)

<pre>int [] n = {43, 45, 12, 54}; int x = n [0]; int y = n [0]; int i = 1; while ( i &lt; 4) {     if (n[i] &gt; x)x = n[i];     if (n[i] &lt; y)y = n[i];     System.out.println(x + ", " + y);     i++; }</pre>	<pre>int [] n = {43, 45, 12, 54}; int x = n [0]; int y = n [0]; for (int i = 1; i &lt; 4; i++) {     if (n[i] &gt; x)x = n[i];     if (n[i] &lt; y)y = n[i];     System.out.println(x + ", " + y); }</pre>
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