

Task A answers

1)	int n = 100;	F.C
	int ct = 0;	1
	while (n > 0)	1
	{	$2n + n$
	ct = ct + 1	n
	n--	n
	}	

Console.WriteLine(ct);

$$\frac{1}{3n+3}$$

$$O(n) = 1000000$$

or 10 or $O(n)$

2)	int n = 50;	F.C
	int r = 20;	1
	int dummy = 0;	1
	Console.WriteLine("Creating a nested loop");	1
	for (int i = 0; i < n; i++)	$3n+1$
	{	
	Console.WriteLine("Inside the first loop");	n
	dummy++	n
	for (int j = 0; j < n; j++)	$n(n+1)$
	{	
	r = r + dummy;	$n(n)$
	Console.WriteLine("Inside the second loop " + r);	$n(n)$
	}	
	}	

$$3n^2 + 4n + 5$$

$$O(n^2) = 2500$$