CSE 30 – ARM function call and stack exercises

Translate the following C code into assembly

```c
#include <stdio.h>
#include <stdlib.h>
#include <string.h>
int x = 20;
short y[10];
int
main(){
  int *ptr = &x;//ptr maps to r0
  ptr++;
  fprintf(stderr, "%p\n", ptr);
  *ptr = 30;
  short *ptr2 = y;//ptr2 maps to r1
  fprintf(stdout, "%hd\n", *(ptr2+1));
  int i = 0;//i maps to r2
  while(ptr2 < y + 10){
    i++;
    *(ptr2++) = i;
    printf("%hd\n", *(ptr2-1));
  }
}
```

```
.cpu cortex-a53
.syntax unified
.arch armv6
```