C Review 3

Answers

```c
/* OUTPUT:  1 1 1 */
void a()
{
    int a = 0;
    int b = 0;
    int c = -1;
    c = a++ || ++b;
    printf("%d %d %d\n", a, b, c); /* 11 */
}


/* OUTPUT:  0 1 0 */
void b()
{
    int a = 1;
    int b = 1;
    int c = -1;
    c = --a && b++;
    printf("%d %d %d\n", a, b, c);
}


/* OUTPUT: 4 5 6 7 */
void c()
{
    int n = 3;
    int *p = &n;
    while (++*p < 8)
    {
        printf("%d ", *p);
    }
}


/* OUTPUT:  3 5 */
void d()
{
    int a[] = {5, 3, 1};
    int *p = &a[1];
    printf("\n%d ", *p--);
    printf("%d \n", *p);
}


/* OUTPUT: 2 2 */
void e()
{
    int a[] = {5, 3, 1};
    int *p = &a[1];
    printf("%d ", --*p);
    printf("%d \n", *p);
}
```

```c
/* OUTPUT:  7 6 5 */
void f()
{
    int a[] = {
        9, 8, 7, 6, 5, 4, 3, 2, 1,
    };
    int *p = a + 1;
    while (*p++ > 5)
        printf("%d ", *p);
    printf("\n");
}

/* OUTPUT: 9 8 7 6 */
void g()
{
    int a[] = {12, 10, 8, 6, 4, 2};
    int *p = a + 1;
    while (--*p > 5)
        printf("%d ", *p);
    printf("\n");
}

/* OUTPUT: 2 4 6 8 */
void h()
{
    int a[] = {1, 2, 3, 4, 5, 6, 7, 8, 9};
    int *p;
    for (p = a + 1; p < a + 8; p += 2)
        printf("%d ", *p);
}

/* OUTPUT:  11 10 */
void i()
{
    int m = 12, n = 34;
    int *p = &m;
    int *q = &n;
    *q = --*p;
    *p = (*q)--;
    printf("\n%d %d\n", *p, *q);
}

/* OUTPUT:  22 11 */
void j()
{
    int a[] = {11, 22};
    int *p = a;
    int *q = a + 1;
    p++;
    q--;
    printf("%d %d\n", *p, *q);
}
```

```c
/* OUTPUT:  gobe */
void k()
{
    char a[] ="goodbye!";
    char *p;
    for (p = a; *p != 0; p += 2)
        putchar(*p);
}

/* OUTPUT:  33 11 11*/
void l()
{
    int a[] = {11, 22, 33};
    int *b[3];
    int **p, **q, **r;
    b[0] = a, b[1] = a + 1;
    b[2] = a + 2;
    p = b;
    q = b + 1, r = b + 2;
    *p = *r--;
    --*q;
    printf("\n%d %d %d\n", **p, **q, **r);
}

/* OUTPUT:  33 21 23*/
void m(){
    int a[] = {11, 22, 33};
    int *p = a;
    int *q = a + 1;
    int *r = a + 2;
    *p++ = *r--;
    *++q = *r--;
    --*p; ++*q; --*r;
    printf("%d %d %d\n", a[0], a[1], a[2]);
}

/* OUTPUT: 23hi */
void n(){
    char a[32] = "0123456789";
    sscanf("hi","%s", a + 4);
    printf("%s\n", a+2);
}

/* OUTPUT:  beautiful */
void o(){
    char *argv[] = {"hello", "beautiful", "world"};
    printf("%s\n", *(argv + 1));
}

/* OUTPUT:  ello*/
void p(){
    char *argv[] = {"hello", "beautiful","world"};
    printf("%s\n", *argv + 1);
}
```