

# cpsc 1620 - Final exam review questions

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# Short questions

What is the output for the following program?

```
int f(int x) {  
    switch(x+1) {  
        case 1: case 3: case 5: return 2*x;  
        case 0: case 2: case 4: return 2*x-1;  
        default: return x;  
    }  
}  
  
int main() {  
    cout << f(0) << f(1) << f(2) << f(3);  
}
```

# Short questions

What is the output for the following program?

```
int f(int a, int &b) {  
    a = a+b;  b = 2*b;  
    return a+b;  
}  
  
int g(int a, int b) {  
    a = a+b;  b = 2*b;  
    return a+b;  
}  
  
int main() {  
    int a=10;  
    cout << f(a,a) << g(a,a);  
}
```

# Short questions

Write the values for a, b, and c after each instruction:

```
a=5;  b=6;
```

```
a = (b++) + 3;
```

```
c = 2*a + (++b);
```

```
b = 2*(++c) - (a++);
```

More exercises like this one at the end of Chapter 2.

# Short questions

Write the type and value for these expressions given that variable *a* is of type `int` and has value 0:

```
static_cast<float>(a = 5) / 2  
(a += 10) * pow(4, 0.5)  
(a = 3) == (2 < 4)  
static_cast<unsigned char>(3.5)  
0 >= 1 >= 2  
-1 < 0 < 1  
1 > 0 > -1
```