AMA2222 Exercise 2 Solution

1

a) False. When using the && operator, both of the relational expressions must be true for the entire expression to be true.

b) True.

c) False. && and || operations are not associative. Counter example: p=0, q=0, r=1 gives the first expression 1 but the second expression 0.

d) True. “a not equal b” is equivalent to “either a<b or a>b”.

2.

a is 6

b is 5

c is 6

3.

a) 1 b) 0 c) 1 d) 0

4.

a)

```
if (x<3)
     x+=10;
```

b)

```
if (x>0 && y>0)
     cout << x*y;
else cout << -1;
```

c)

```
if (x>y)
     cout << x-y;
else cout << y-x;
```

5.

```
#include <iostream>
using namespace std;
int main ()
{
     double x,y;
     cout << "Enter a number: ";
     cin >> x;
     if (x>=0) y = x;
          else y = -x;
     cout << "|" << x << "| = " << y;
     return 0;
}
```

6.

```
#include <iostream>
using namespace std;
int main()
{
     int a, b, c;
     cout << "Enter three integers: ";
     cin >> a >> b >> c;
     if ((a*a+b*b==c*c)||(b*b+c*c==a*a)||(a*a+c*c==b*b))
          cout << "This is a Pythagorean triple.";
     else cout << "This is not a Pythagorean triple.";
     return 0;
}
```