

- b) Consider the following code. Given a test suite T that has two tests t1, and t2 as follows: t1: <x=1, y=0>, t2: <x= 2, y=1>.

Calculate the branch (i.e., decision) coverage of that the test suite T. You need to show all the steps for your calculation **[8]**:

Begin

```
int x,y,z;
input(x,y);

if(y > 0)
{
    if( x=0)
        z = foo1(x,y);
    else
        z = foo2(x,y);

    y = y-1;

}
else
{
    z = foo3(x,y);
}
```

End

T1:<x=1, y=0>:
Covers y>0 → false branch
T2: <x=2, y=1>:
Covers y>0 → true branch
Covers x=0 → false branch

Branch coverage = $\frac{3}{4}$ =0.75

Tracing for T1
Tracing for T2
Equation for branch coverage
Substitution to get the correct coverage