

Lecture 15 Worksheet

Question 1

Assume that there is a function `reallyuseful` that takes two integer parameters and but does not return a result. Write the Hack Virtual Machine code to call `reallyuseful` and pass it the parameters 7 and 12.

Question 2

Draw the Hack stack as it changes during the execution of the Hack Virtual Machine code that you wrote for Question 1. Do not draw the details of the stack during the execution of `reallyuseful`.

Question 3

Assume that you have the following recursive function, `recfib`:

```
function recfib(int x)
{
    if ( x < 2 )
    {
        return 1
    }
    return recfib(x - 1) + recfib(x - 2)
}
```

Draw the Hack stack as it changes during a call of `recfib(2)`. Start with an empty stack before the parameter is pushed onto it.