

# ARMAssemblyInt:BigEx:B

## setBit C Code

```
#define bitsPerInt 32

void setBit(unsigned prime, unsigned primeSet[]) {
    primeSet[prime/bitsPerInt]
        = primeSet[prime/bitsPerInt] | (1 << prime % bitsPerInt);
}
```

```
160 setBit:
161     str    fp, [sp, #-4]!
162     add    fp, sp, #0
163     sub    sp, sp, #12
164     str    r0, [fp, #-8]
165     str    r1, [fp, #-12]
166     ldr    r3, [fp, #-8]
167     mov    r3, r3, lsr #5
168     mov    r3, r3, asl #2
169     ldr    r2, [fp, #-12]
170     add    r3, r2, r3
171     ldr    r2, [fp, #-8]
172     mov    r2, r2, lsr #5
173     mov    r2, r2, asl #2
174     ldr    r1, [fp, #-12]
175     add    r2, r1, r2
176     ldr    r2, [r2]
177     ldr    r1, [fp, #-8]
178     and    r1, r1, #31
179     mov    r0, #1
180     mov    r1, r0, asl r1
181     orr    r2, r2, r1
182     str    r2, [r3]
183     sub    sp, fp, #0
184     ldr    fp, [sp], #4
185     bx    lr
```

primeSet

