

# HeapifyUp BasicBlock Graph

```

heapifyUp(int*, unsigned int):
    push    rbp
    mov     rbp, rsp
    sub     rsp, 16
    mov     qword ptr [rbp - 8], rdi
    mov     dword ptr [rbp - 12], esi
    cmp     dword ptr [rbp - 12], 1
    jbe     .LBB0_4

```

```

heapifyUp(int*, unsigned int):@8
    mov     rax, qword ptr [rbp - 8]
    mov     ecx, dword ptr [rbp - 12]
    mov     edx, ecx
    mov     ecx, dword ptr [rax + 4*rdx]
    mov     rax, qword ptr [rbp - 8]
    mov     esi, dword ptr [rbp - 12]
    shr     esi, 1
    mov     esi, esi
    mov     edx, esi
    cmp     ecx, dword ptr [rax + 4*rdx]
    jge     .LBB0_3

```

```

heapifyUp(int*, unsigned int):@19
    mov     rax, qword ptr [rbp - 8]
    mov     ecx, dword ptr [rbp - 12]
    mov     edx, ecx
    mov     ecx, dword ptr [rax + 4*rdx]
    mov     dword ptr [rbp - 16], ecx
    mov     rax, qword ptr [rbp - 8]
    mov     ecx, dword ptr [rbp - 12]
    shr     ecx, 1
    mov     ecx, ecx
    mov     edx, ecx
    mov     ecx, dword ptr [rax + 4*rdx]
    mov     rax, qword ptr [rbp - 8]
    mov     esi, dword ptr [rbp - 12]
    mov     edx, esi
    mov     dword ptr [rax + 4*rdx], ecx
    mov     ecx, dword ptr [rbp - 16]
    mov     rax, qword ptr [rbp - 8]
    mov     esi, dword ptr [rbp - 12]
    shr     esi, 1
    mov     esi, esi
    mov     edx, esi
    mov     dword ptr [rax + 4*rdx], ecx
    mov     rdi, qword ptr [rbp - 8]
    mov     ecx, dword ptr [rbp - 12]
    shr     ecx, 1
    mov     esi, ecx
    call    heapifyUp(int*, unsigned int)

```

```

.LBB0_3:
    jmp     .LBB0_4

```

```

.LBB0_4:
    add     rsp, 16
    pop     rbp
    ret

```

Generated using tools at  
<https://godbolt.org>