

TestCase 1:

Input

```
createOrder(1001, 1, 100, 4)
createOrder(1002, 2, 150, 7)
createOrder(1003, 8, 50, 2)
print(2, 15)
createOrder(1004, 9, 300, 12)
getRankOfOrder(1004)
print(45, 55)
createOrder(1005, 15, 400, 8)
createOrder(1006, 17, 100, 3)
cancelOrder(1005, 18)
getRankOfOrder(1004)
createOrder(1007, 19, 600, 7)
createOrder(1008, 25, 200, 8)
updateTime(1007, 27, 12)
getRankOfOrder(1006)
print(55, 85)
createOrder(1009, 36, 500, 15)
createOrder(1010, 40, 250, 10)
Quit()
```

Output:

```
Order 1001 has been created - ETA: 5
Order 1002 has been created - ETA: 16
Order 1003 has been created - ETA: 25
Order 1001 has been delivered at time 5.
There are no orders in that time period.
Order 1004 has been created - ETA: 35
Updated ETAs: [1002:16, 1004: 35, 1003: 49]
Order 1004 will be delivered after 1 order.
[1003]
Order 1005 has been created - ETA: 59
Order 1006 has been created - ETA: 70
Order 1002 has been delivered at time 16.
Order 1005 has been canceled.
Order 1004 will be delivered after 0 orders.
Updated ETAs: [1004:35, 1003: 49, 1006:54]
Order 1007 has been created - ETA: 58
Updated ETAs: [1004: 35, 1003: 49, 1007:58, 1006:68]
```

TestCase 2:

Input

```
createOrder(3001, 1, 200, 7)
createOrder(3002, 3, 250, 6)
createOrder(3003, 8, 1000, 3)
createOrder(3004, 13, 100, 5)
createOrder(3005, 15, 300, 4)
createOrder(3006, 17, 800, 2)
print(2, 20)
updateTime(3004, 20, 2)
print(5, 25)
cancelOrder(3005, 25)
print(10, 30)
createOrder(3007, 30, 200, 3)
getRankOfOrder(3005)
createOrder(3008, 33, 250, 6)
createOrder(3009, 38, 100, 3)
createOrder(3010, 43, 4000, 5)
getRankOfOrder(3008)
createOrder(3011, 45, 300, 4)
createOrder(3012, 47, 150, 2)
print(35, 50)
getRankOfOrder(3006)
Quit()
```

Output:

```
Order 3001 has been created - ETA: 8
Order 3002 has been created - ETA: 21
Order 3003 has been created - ETA: 18
Order 3001 has been delivered at time 8.
Updated ETAs: [3003: 18, 3002:27]
Order 3004 has been created - ETA: 38
Order 3005 has been created - ETA: 47
Order 3006 has been created - ETA: 35
Updated ETAs: [3003: 18, 3002: 27, 3006: 35,
3004: 42, 3005: 51]
[3003]
Updated ETAs: [3003: 18, 3002: 27, 3006: 35,
3004: 39, 3005: 45]
[3003]
Order 3005 has been canceled.
Updated ETAs: [3002: 27, 3006: 35, 3004: 39]
Order 3003 has been delivered at time 18.
[3002]
Order 3007 has been created - ETA: 44
There is no order with order-id 3005
Order 3002 has been delivered at time 27.
Order 3008 has been created - ETA: 53
Order 3009 has been created - ETA: 62
Order 3006 has been delivered at time 35.
Order 3010 has been created - ETA: 49
Updated ETAs: [3010: 49, 3007: 57, 3008: 66,
3009: 75]
Order 3004 has been delivered at time 39.
Order 3008 will be delivered after 2 orders.
```

```
Order 3011 has been created - ETA: 82
Order 3012 has been created - ETA: 88
[3010]
Order 3006 has already been delivered.
Order 3010 has been delivered at time 49.
Order 3007 has been delivered at time 57.
Order 3008 has been delivered at time 66.
Order 3009 has been delivered at time 75.
Order 3011 has been delivered at time 82.
Order 3012 has been delivered at time 88.
```

TestCase 3:

Input

```
createOrder(4001, 1, 200, 3)
createOrder(4002, 3, 250, 6)
createOrder(4003, 8, 100, 3)
createOrder(4004, 13, 100, 5)
print(2, 15)
getRankOfOrder(4003)
updateTime(4003, 15, 2)
createOrder(4005, 17, 150, 4)
cancelOrder(4002, 20)
createOrder(4006, 22, 300, 3)
print(10, 25)
createOrder(4007, 25, 200, 2)
createOrder(4008, 28, 350, 5)
print(20, 30)
getRankOfOrder(4006)
createOrder(4009, 32, 250, 3)
cancelOrder(4004, 34)
updateTime(4005, 37, 5)
createOrder(4010, 38, 400, 6)
print(35, 45)
getRankOfOrder(4007)
createOrder(4011, 40, 200, 4)
createOrder(4012, 42, 300, 3)
print(50, 55)
updateTime(4010, 55, 7)
cancelOrder(4009, 56)
print(60, 90)
Quit()
```

Output:

Order 4001 has been created - ETA: 4
Order 4002 has been created - ETA: 13
Order 4003 has been created - ETA: 22
Order 4001 has been delivered after time 4.
Order 4004 has been created - ETA: 30
Order 4002 has been delivered at time 13.
No orders will be delivered in the given time period.
Order 4003 will be delivered after 0 orders.
Updated ETAs: [4003: 21, 4004: 28]
Order 4005 has been created - ETA: 37
Cannot cancel. Order 4002 has already been delivered.
Order 4006 has been created - ETA: 44
Order 4003 has been delivered at time 22.
No orders will be delivered in the given time period.
Order 4007 has been created - ETA: 49
Order 4008 has been created - ETA: 56
[4004]
Order 4006 will be delivered after 2 orders.
Order 4009 has been created - ETA: 64
Order 4004 has been delivered at time 30.
Cannot cancel. Order 4004 has already been delivered.
Cannot Update. Order 4005 has already been delivered.
Order 4005 has been delivered at time 37.
Order 4010 has been created - ETA: 73
[4006]
Order 4007 will be delivered after 1 order.
Order 4011 has been created - ETA: 83
Order 4012 has been created - ETA: 90
[4008]
Updated ETAs: [4006: 42, 4007: 49, 4008:56, 4009:64, 4010:74, 4011:85, 4012:92]
Order 4006 has been delivered at time 42.
Order 4007 has been delivered at time 49.
Order 4009 has been canceled.
Order 4008 has been delivered at time 56.
[4010, 4011]
Order 4010 has been delivered at time 74.
Order 4011 has been delivered at time 85.
Order 4012 has been delivered at time 92.