

Give the sequences of nodes examined when the methods in BST are used to compute each of the following quantities for the tree drawn at below.

Advised Operation:

```

graph TD
    E((E)) --> D((D))
    E --> Q((Q))
    D --> A((A))
    Q --> J((J))
    Q --> T((T))
    J --> M((M))
    T --> S((S))
    A --- NA[ ]
    M --- NM[ ]
    S --- NS[ ]
  
```

(a) Floor ("Q")

→ "Q"

(b) Select ("S")

A	D	E	J	M	Q	S	T
---	---	---	---	---	---	---	---

→ "Q"

(c) Ceiling ("Q")

→ "Q"

(d) Rank ("J")

Rank of "J" is 3.

(e) size (D, T)

Rank of D = 2
 Rank of T = 8
 $\text{Rank}(D) - \text{Rank}(D) + 1 = 2 - 2 + 1 = 1$

(f) Keys (D, T)

D	E	J	M	Q	S	T
---	---	---	---	---	---	---