Depth first search

new = $\{A, B, C, D, E, F, G\}$
old = $\{\}$
T = $\{\}$

---

new = $\{B, C, D, E, F, G\}$
old = $\{A\}$
$L[A] = \{B, D, C\}$
T = $\{\}$

A

---

new = $\{C, D, E, F, G\}$
old = $\{A, B\}$

$L(B) = \{A, E\}$
T = $\{(A,B)\}$

B
A

E
D
C
B
A

new = $\{F, G\}$
old = $\{A, B, C, D, E\}$

$L(E) = \{B, F, G\}$

T = $\{(A,B), (A,C), (A,D)(B,E)\}$

C
B
A

new = $\{D, E, F, G\}$
old = $\{A, B, C\}$

$L(C) = \{A, D\}$
T = $\{(A, B), (A,C)\}$

F
E
D
C
B
A

new = $\{G\}$
old = $\{A, B, C, D, E, F\}$
$L(F) = \{D, F, G\}$
T = $\{(A,B), (A,C), (A,D)$
$, (B,E), (E,F)\}$

D
C
B
A

new = $\{E, F, G\}$
old = $\{A, B, C, D\}$

$L(D) = \{A, C, F\}$
T = $\{(A,B), (A,C), (A,D)\}$

G
F
E
D
C
B
A

new = $\{\}$
old = $\{A, B, C, D, E, F, G\}$
$L(G) = \{E, F\}$
T = $\{(A, B), (A,C), (A,D)$
$(B,E), (E,F), (F,G)\}$

Breadth-first search

Q
```
[        ]
```

new = $\{A, B, C, D, E, F, G\}$

old = $\{\ \}$

T = $\{\ \}$

Q
```
| A |        |
```

$L(A) = \{B, C, D\}$

new = $\{B, C, D, E, F, G\}$

old = $\{A\}$

T = $\{\ \}$

Q | E | C | F |

$L(E) = \{B, F, G\}$

new = $\{\ \}$

old = $\{A, B, C, D, E, F, G\}$

T = $\{(E, B), (E, F), (E, G)\}$

Q
```
| B | D | E |        |
```

$L(B) = \{A, E\}$

new = $\{C, F, G\}$

old = $\{A, B, D, E\}$

T = $\{(A,B), (A, D), (A,C)\}$

Q
```
| F |        |
```

$L(F) = \{D, E, G\}$

new = $\{\ \}$

old = $\{A, B, C, D, E, F, G\}$

T = $\{(E, F), (F, G)\}$

Q
```
| D | E | C | F |
```

$L(D) = \{A, C\}$

new = $\{G\}$

old = $\{A, B, C, D, E, F\}$

Q
```
| A | B | C |        |
```
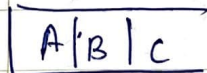
$L(C) = \{B, E, A\} \quad \{A, D\}$

new = $\{\ \}$

old = $\{A, B, C, D, E, F, G\}$

T = $\{(D, A), (D, C), (D, F)\}$

Q
```
[        ]
```

new $\{\ \}$

old = $\{A, B, C, D, E, F, G\}$

T = $\{(A,B), (A,C), (A,D)$
$, (B,E)\}$

Depth-first Search

new = $\{A, B, C, D, E, F, G, H, I, J\}$

old = $\{\ \}$

T = $\{\ \}$

[A]

new = $\{B, C, D, E, F, G, H, I, J\}$

old = $\{A\}$

~~T = {A, B}~~ , ~~L(B) = {A, E}~~

$L[A] = \{B, C, D\}$

T = $\{\}$

[B]
[A]

new = $\{C, D, E, F, G, H, I, J\}$

old = $\{A, B\}$

T = $\{A, B\}$, $L(B) = \{A, E\}$

[C]
[B]
[A]

new = $\{D, E, F, G, ~~H, I~~ H, I, J\}$

old = $\{A, B, C\}$

$L(C) = \{A, F\}$

T = $\{(A, B) (A, C)\}$.

[D]
[C]
[B]
[A]

new = $\{E, F, G, H, I, J\}$

old = $\{A, B, C, D\}$

$L(D) = \{E, F, H\}$

T = $\{(A, B), (A, C), (A, D)\}$

[E]
[D]
[C]
[B]
[A]

new = $\{F, G, H, I, J\}$

old = $\{A, B, C, D, E\}$

$L(E) = \{B, D, G\}$

T = $\{(A, B) (A, C), (B, E)\}$.

[F]
[C]
[D]
[C]
[B]
[A]

new = $\{G, H, I, J\}$

old = $\{A, B, C, D, E, F\}$

$L(F) = \{C, D, I\}$

T = $\{(A, C), (A, B) (A, D) (D, F)\}$

[G]
[F]
[E]
[D]
[C]
[B]
[A]

new = $\{H, I, J\}$

old = $\{A, B, C, D, E, F, G\}$

$L(G) = \{E, H, J\}$

T = $\{(A, B) (A, C), (A, D) (B, E) (E, G)\}$.

[H]
[G]
[F]
[E]
[D]
[C]
[B]
[A]

new = $\{I, J\}$

old = $\{A, B, C, D, E, F, G, H\}$

$L(H) = \{D, G, I, J\}$

T = $\{(A, B), (B, E), (E, D) (D, H)\}$

[I]
[H]
[G]
[F]
[E]
[D]
[C]
[B]
[A]

new = $\{J\}$

old = $\{A, B, C, D, E, F, G, H, I\}$

$L(I) = \{F, H, I\}$

T = $\{(A, C) (C, F), (F, I) (H, J)\}$

Breadth first Search

Date

No

Q

```
[        ]          new = {A, B, C, D, E, F, G, H, I, J}
```
old = { }
T = { }

Q

```
[ A ]              L(A) = { B, D, C}
```
new = {B, C, D, E, F, G, H, I, J}
old = {A}
T = { }

Q | B | C | D | E   new {F, G, H, I, J}
old = {A, B, C, D, E}   L(B) = {A, E}
T = {(A, B) (A, C) }

Q | H | I |
| B | C | D | E | new = { F, G, H, I, J}
old = { A, B, C, D, E, F, G, H, I }
L (H) = { D, G, J }.
T = {(H, D), (H, G), (H, J), (H, I)}

Q

```
[ J ]              L(J) = {G, H, I}
```
new = { }
old = {A, B, C, D, E, F, G, H, I, J}
T = { (J, G), (J, H), (J, Z)}.

Q | [   ]   new { }
old = { A, B, C, D, E, F, G, H, I, J}
T = { (A, B), (A, C), (A, D), (H, D), (G, H), (H, I)}.