*

>*

Adding R 3.
Start at top dummy.
Move forward.
At bottom.

```
 >*  R
     3
```

Adding R 3.
Insert.
Tails.

```
 >*      R
         3
```

Adding M 0.
Start at top dummy.
Move forward.
At bottom.

```
 >*  M  R
     0  3
```

Adding M 0.
Insert.
Heads.

```
 >*

  *  M  R
     0  3
```

Adding M 0.
Create new top dummy.

```
 >*  M

  *  M  R
     0  3

Adding M 0.
Insert.
Tails.
```

```
 >*  M

  *  M  R
     0  3
```

Adding W 4.
Start at top dummy.

```
   *  >M

   *   M   R
       0   3
```

Adding W 4.
Move forward.
Push position on stack.

```
   *   M

   * >M   R
       0   3

Adding W 4.
Move down.
```

```
    *   M

    *   M >R
        0   3

Adding W 4.
Move forward.
At bottom.
```

```
   *   M

   *   M >R   W
       0   3   4

Adding W 4.
Insert.
Heads.
```

```
  * >M

  *  M  R  W
     0  3  4

Adding W 4.
Pop position from stack.
```

```
  * >M      W

  *  M  R  W
     0  3  4

Adding W 4.
Insert.
Tails.
```

```
 >*      M      W

  *      M  R  W
         0  3  4
```

Adding I 7.
Start at top dummy.
Move forward.
Push position on stack.

```
   *        M        W


  >*        M   R    W
            0   3    4
```

Adding I 7.
Go down.
Go forward.
At bottom.

```
   *     M     W

 >*  I  M  R  W
     7  0  3  4
```

Adding I 7.
Insert.
Tails.

```
 >*      M         W

   *  I  M      R  W
      7  0      3  4
```

Adding P 4.
Start at top dummy.

```
   *      >M           W

   *   I  M        R  W
       7  0        3  4
```

Adding P 4.
Go forward.
Push position on stack.

```
    *      M           W

    *   I >M       R   W
        7  0       3   4
```

Adding P 4.
Go down.
Go forward.
At bottom.

```
   *      M          W

   *   I >M   P   R   W
       7   0   4   3   4
```

Adding P 4.
Insert.
Tails.

```
  >*          M          W

   *      I  M  P  R  W
          7  0  4  3  4
```

Adding A 4.
Start at top dummy.
Move forward.
Push position on stack.

```
   *          M          W

  >*       I   M   P   R   W
           7   0   4   3   4
```

Adding A 4.
Go down.
Go forward.
At bottom.

```
   *           M           W

 >*   A   I   M   P   R   W
      4   7   0   4   3   4
```

Adding A 4.
Insert.
Tails.

```
 >*          M              W

   *  A  I  M  P  R      W
      4  7  0  4  3      4
```

Adding S 5.
Start at top dummy.

```
   *         >M              W

   *  A  I  M  P  R     W
      4  7  0  4  3     4
```

Adding S 5.
Go forward.
Push position on stack.

```
   *        M           W

   *  A  I >M  P  R     W
      4  7  0  4  3     4
```

Adding S 5.
Go down.

```
   *          M              W

   *  A  I  M  P >R         W
      4  7  0  4  3         4
```

Adding S 5.
Go forward.
At bottom.

```
   *          M            W

   *   A   I   M   P  >R   S   W
       4   7   0   4   3   5   4
```

Adding S 5.
At bottom.
Insert.
Tails.

```
 >*              M               W

   *  A  I       M  P  R  S  W
      4  7       0  4  3  5  4
```

Adding K 2.
Start at top dummy.
Move forward.
Push.

```
   *              M              W

  >*   A   I      M   P   R   S   W
       4   7      0   4   3   5   4
```

Adding K 2.
Go down.

```
    *              M              W

    *   A >I      M  P  R  S  W
        4  7      0  4  3  5  4

Adding K 2.
Go forward.
At bottom.
```

```
    *              M               W

    *   A >I   K   M   P   R   S   W
        4   7   2   0   4   3   5   4
```

Adding K 2.
Insert.
Heads.

```
 >*              M              W

   *   A   I   K   M   P   R   S   W
       4   7   2   0   4   3   5   4

Adding K 2.
Pop.
```

```
  >*          K  M               W

    *  A  I  K  M  P  R  S  W
       4  7  2  0  4  3  5  4
```

Adding K 2.
Insert.
Tails.

```
 >*              K  M              W

   *  A  I       K  M  P  R  S  W
      4  7       2  0  4  3  5  4

Adding J 0.
Start.
Forward.
Push.
```

```
   *              K   M                  W

  >*   A   I      K   M   P   R   S   W
       4   7      2   0   4   3   5   4

Adding J 0.
Down.
```

```
  *               K   M               W

  *   A  >I       K   M   P   R   S   W
      4   7       2   0   4   3   5   4

Adding J 0.
Forward.
At bottom.
```

```
   *               K   M                   W

   *   A  >I   J   K   M   P   R   S   W
       4   7   0   2   0   4   3   5   4
```

Adding J 0.
Insert.
Tails.

```
  >*            K  M                W

   *  A  I  J  K  M  P  R  S     W
      4  7  0  2  0  4  3  5     4

Adding U 3.
Start.
```

```
    *              K >M              W

    *  A  I  J  K  M  P  R  S     W
       4  7  0  2  0  4  3  5     4
```

Adding U 3.
Forward.
Push.

```
   *              K   M                  W

   *   A   I   J   K  >M   P   R   S      W
       4   7   0   2   0   4   3   5      4

Adding U 3.
Down.
```

```
  *           K  M                 W

  *  A  I  J  K  M  P  R >S        W
     4  7  0  2  0  4  3  5        4

Adding U 3.
Forward.
At bottom.
```

```
   *              K   M                  W

   *   A   I   J   K   M   P   R  >S   U   W
       4   7   0   2   0   4   3   5   3   4
```

Adding U 3.
Insert.
Heads.

```
   *              K >M                 W

   *  A  I  J  K  M  P  R  S  U  W
      4  7  0  2  0  4  3  5  3  4

Adding U 3.
Pop.
```

```
   *                K >M              U  W

   *  A  I  J  K  M  P  R  S  U  W
      4  7  0  2  0  4  3  5  3  4
```

Adding U 3.
Insert.
Heads.
Stack is empty!

```
 >*

   *             K   M             U   W

   *   A   I   J   K   M   P   R   S   U   W
       4   7   0   2   0   4   3   5   3   4

Adding U 3.
Add new top dummy.
```

```
 >*                              U

  *             K  M            U  W

   *  A  I  J  K  M  P  R  S  U  W
      4  7  0  2  0  4  3  5  3  4

Adding U 3.
Insert.
Tails.
```

```
 >*                              U

   *              K  M          U  W

   *  A  I  J  K  M  P  R  S  U  W
      4  7  0  2  0  4  3  5  3  4

Adding Z 0.
Start.
```

```
    *                               >U

    *               K   M               U   W

  *   A   I   J   K   M   P   R   S   U   W
      4   7   0   2   0   4   3   5   3   4

Adding Z 0.
Forward.
Push.
```

```
   *                               U

   *              K   M              >U   W

   *   A   I   J   K   M   P   R   S   U   W
       4   7   0   2   0   4   3   5   3   4

Adding Z 0.
Down.
```

```
   *                               U

   *              K   M            U  >W

  *   A   I   J   K   M   P   R   S   U   W
      4   7   0   2   0   4   3   5   3   4

Adding Z 0.
Forward.
Push.
```

```
  *                              U

  *              K  M            U  W

  *  A  I  J  K  M  P  R  S  U >W
     4  7  0  2  0  4  3  5  3  4
```

Adding Z 0.
Down.
Forward.
At bottom.

```
    *                           U

    *           K   M           U   W

  *   A   I   J   K   M   P   R   S   U  >W   Z
      4   7   0   2   0   4   3   5   3   4   0
```

Adding Z 0.
Insert.
Heads.

```
   *                               U

   *              K   M             U  >W

   *  A   I   J   K   M   P   R   S     U   W   Z
      4   7   0   2   0   4   3   5     3   4   0
Adding T 6.
Pop.
```

```
    *                                 U

    *            K  M                 U >W   Z

   *  A  I  J  K  M  P  R  S          U  W   Z
      4  7  0  2  0  4  3  5          3  4   0
```

Adding T 6.
Insert.
Tails.

```
 >*                                  U

   *              K  M               U  W  Z

    *  A  I  J  K  M  P  R  S        U  W  Z
       4  7  0  2  0  4  3  5        3  4  0
Adding T 6.
Start.
Forward.
Push.
```

```
    *                              U

  >*            K  M              U  W  Z

    *  A  I  J  K  M  P  R  S     U  W  Z
       4  7  0  2  0  4  3  5     3  4  0
```

Adding T 6.
Down.

```
    *                               U

    *              K  >M            U   W   Z

   *   A   I   J   K   M   P   R   S   U   W   Z
       4   7   0   2   0   4   3   5   3   4   0
Adding T 6.
Forward.
Push.
```

```
   *                                 U

   *                 K   M           U   W   Z

   *   A   I   J   K  >M   P   R   S     U   W   Z
       4   7   0   2   0   4   3   5     3   4   0
```

Adding T 6.
Down.

```
    *                              U

    *           K   M              U   W   Z

  * A   I   J   K   M   P   R  >S     U   W   Z
    4   7   0   2   0   4   3   5     3   4   0
```

Adding T 6.
Forward.
At bottom.

```
    *                              U

    *           K   M              U   W   Z

   *   A   I   J   K   M   P   R  >S   T   U   W   Z
       4   7   0   2   0   4   3   5   6   3   4   0

Adding T 6.
Insert.
Heads.
```

```
    *                                 U

    *              K  >M              U   W   Z

  *   A   I   J   K   M   P   R   S   T   U   W   Z
      4   7   0   2   0   4   3   5   6   3   4   0

Adding T 6.
Pop.
```

```
   *                              U

   *              K >M           T  U  W  Z

   *  A  I  J  K  M  P  R  S  T  U  W  Z
      4  7  0  2  0  4  3  5  6  3  4  0
Adding T 6.
Insert.
Heads.
```

```
 >*                                  U

  *              K  M           T  U  W  Z

   *  A  I  J  K  M  P  R  S  T  U  W  Z
      4  7  0  2  0  4  3  5  6  3  4  0
```

Adding T 6.
Pop.

```
 >*                              T  U

  *              K  M           T  U  W  Z

  *  A  I  J  K  M  P  R  S  T  U  W  Z
     4  7  0  2  0  4  3  5  6  3  4  0
```

Adding T 6.
Insert.
Heads.
Stack is empty.

```
 >*

  *                               T   U

  *               K   M           T   U   W   Z

  *   A   I   J   K   M   P   R   S   T   U   W   Z
      4   7   0   2   0   4   3   5   6   3   4   0
```

Adding T 6.
Add new top dummy.

```
 >*                              T

  *                             T  U

  *              K  M           T  U  W  Z

  *  A  I  J  K  M  P  R  S  T  U  W  Z
     4  7  0  2  0  4  3  5  6  3  4  0
```

Adding T 6.
Insert.
Tails.

```
 >*                              T

  *                             T  U

  *              K  M           T  U  W  Z

  *  A       I  J  K  M  P  R  S  T  U  W  Z
     4       7  0  2  0  4  3  5  6  3  4  0
```

Adding G 6.
Start.
Forward.
Push.

```
   *                           T

 >*                           T   U

   *             K   M         T   U   W   Z

   *   A     I   J   K   M   P   R   S   T   U   W   Z
       4     7   0   2   0   4   3   5   6   3   4   0
```

Adding G 6.
Down.
Forward.
Push.

```
   *                               T

   *                               T   U

 >*               K   M            T   U   W   Z

   *   A       I   J   K   M   P   R   S   T   U   W   Z
       4       7   0   2   0   4   3   5   6   3   4   0
```

Adding G 6.
Down.
Forward.
Push.

```
   *                             T

   *                             T   U

   *                 K   M       T   U   W   Z

 >*   A        I   J   K   M   P   R   S   T   U   W   Z
      4        7   0   2   0   4   3   5   6   3   4   0
```

Adding G 6.
Down.

```
  *                              T

  *                              T  U

  *                K  M          T  U  W  Z

  * >A       I  J  K  M  P  R  S  T  U  W  Z
       4     7  0  2  0  4  3  5  6  3  4  0
```

Adding G 6.
Forward.
At bottom.

```
   *                                T

   *                                T   U

   *                  K   M          T   U   W   Z

   * >A   G   I   J   K   M   P   R   S   T   U   W   Z
      4   6   7   0   2   0   4   3   5   6   3   4   0
```

Adding G 6.
Insert.
Heads.

```
   *                                T

   *                                T   U

  >*                 K   M          T   U   W   Z

   *   A   G   I   J   K   M   P   R   S   T   U   W   Z
       4   6   7   0   2   0   4   3   5   6   3   4   0

Adding G 6.
Pop.
```

```
 *                         T

 *                         T  U

>*      G        K  M      T  U  W  Z

 *   A  G  I  J  K  M  P  R  S  T  U  W  Z
     4  6  7  0  2  0  4  3  5  6  3  4  0
```

Adding G 6.
Insert.
Heads.

```
  *                              T

 >*                              T   U

  *      G        K   M          T   U   W   Z

  *   A  G  I  J  K  M  P  R  S  T  U  W  Z
      4  6  7  0  2  0  4  3  5  6  3  4  0
```

Adding G 6.
Pop.

```
   *                              T

 >*      G                        T   U

   *     G          K   M         T   U   W   Z

   *  A  G   I   J  K   M   P   R   S   T   U   W   Z
      4  6   7   0  2   0   4   3   5   6   3   4   0
```

Adding G 6.
Insert.
Tails.

```
 >*                                      T

   *           G                         T   U

   *           G           K   M         T   U   W   Z

   *   A       G   I   J   K   M   P   R   S   T   U   W   Z
       4       6   7   0   2   0   4   3   5   6   3   4   0
```

Adding F 8.
Start.
Forward.
Push.

```
   *                                    T

 >*          G                          T   U

   *          G           K   M         T   U   W   Z

   *   A      G   I   J   K   M   P   R   S   T   U   W   Z
       4      6   7   0   2   0   4   3   5   6   3   4   0
```

Adding F 8.
Down.
Forward.
Push.

```
   *                                  T

   *         G                        T   U

  >*         G           K   M        T   U   W   Z

   *   A     G   I   J   K   M   P   R   S   T   U   W   Z
       4     6   7   0   2   0   4   3   5   6   3   4   0
```

Adding F 8.
Down.
Forward.
Push.

```
  *                                       T

  *           G                           T   U

  *           G           K   M           T   U   W   Z

 >*    A      G   I   J   K   M   P   R   S   T   U   W   Z
       4      6   7   0   2   0   4   3   5   6   3   4   0
```

Adding F 8.
Down.

```
  *                           T

  *       G                   T  U

  *       G           K  M    T  U  W  Z

  * >A    G  I  J  K  M  P  R  S  T  U  W  Z
     4    6  7  0  2  0  4  3  5  6  3  4  0
```

Adding F 8.
Forward.
At bottom.

```
 *                                 T

 *           G                     T   U

 *           G           K   M     T   U   W   Z

 * >A   F   G   I   J   K   M   P   R   S   T   U   W   Z
     4   8   6   7   0   2   0   4   3   5   6   3   4   0
```

Adding F 8.
Insert.
Heads.

```
   *                                T

   *          G                     T  U

  >*          G           K  M      T  U  W  Z

   *    A  F  G  I  J  K  M  P  R  S  T  U  W  Z
        4  8  6  7  0  2  0  4  3  5  6  3  4  0

Adding F 8.
Pop.
```

```
  *                                     T

  *           G                         T   U

 >*       F   G           K   M         T   U   W   Z

  *   A   F   G   I   J   K   M   P   R   S   T   U   W   Z
      4   8   6   7   0   2   0   4   3   5   6   3   4   0
```

Adding F 8.
Insert.
Heads.

```
   *                              T

 >*           G                   T   U

   *      F   G         K   M      T   U   W   Z

   *   A   F   G   I   J   K   M   P   R   S   T   U   W   Z
       4   8   6   7   0   2   0   4   3   5   6   3   4   0
```

Adding F 8.
Pop.

```
  *                             T

 >*      F  G                   T  U

  *      F  G        K  M       T  U  W  Z

  *  A  F  G  I  J  K  M  P  R  S  T  U  W  Z
     4  8  6  7  0  2  0  4  3  5  6  3  4  0

Adding F 8.
Insert.
Tails.
```

```
 >*                                       T

   *        F  G                          T  U

   *        F  G           K     M        T  U  W  Z

   *   A  F  G  I  J  K        M  P  R  S  T  U  W  Z
       4  8  6  7  0  2        0  4  3  5  6  3  4  0
```

Adding L 9.
Start.
Forward.
Push.

```
  *                                     T

>*        F  G                          T  U

  *        F  G        K     M          T  U  W  Z

  *  A  F  G  I  J  K     M  P  R  S  T  U  W  Z
     4  8  6  7  0  2     0  4  3  5  6  3  4  0
```

Adding L 9.
Down.

```
 *                                    T

 *       F >G                         T   U

 *       F  G           K      M      T   U   W   Z

 *   A   F  G   I   J   K      M   P  R   S   T   U   W   Z
     4   8  6   7   0   2      0   4  3   5   6   3   4   0
```

Adding L 9.
Forward.
Push.

```
 *                                      T

 *        F  G                          T  U

 *        F >G           K     M        T  U  W  Z

 *  A  F  G  I  J  K        M  P  R  S  T  U  W  Z
    4  8  6  7  0  2        0  4  3  5  6  3  4  0

Adding L 9.
Down.
```

```
 *                                        T

 *      F  G                              T  U

 *      F  G         >K      M            T  U  W  Z

 *  A  F  G  I  J  K      M  P  R  S  T  U  W  Z
    4  8  6  7  0  2      0  4  3  5  6  3  4  0
```

Adding L 9.
Forward.
Push.

```
  *                                  T

  *      F  G                        T  U

  *      F  G        K     M         T  U  W  Z

  *  A  F  G  I  J >K     M  P  R  S  T  U  W  Z
     4  8  6  7  0  2     0  4  3  5  6  3  4  0
```

Adding L 9.
Down.
Forward.
At bottom.

```
 *                                        T

 *      F  G                              T  U

 *      F  G        K     M               T  U  W  Z

 *  A  F  G  I  J >K  L  M  P  R  S  T  U  W  Z
    4  8  6  7  0  2  9  0  4  3  5  6  3  4  0
```

Adding L 9.
Insert.
Tails.

```
  *                                              T

  *          F  G                                T  U

  *          F  G           K      M             T  U  W  Z

  *  A       F  G  I  J  K  L  M  P  R  S  T  U  W  Z
     4       8  6  7  0  2  9  0  4  3  5  6  3  4  0

Adding C 1.
```

```
 >*                                           T

   *           F  G                           T  U

   *           F  G           K        M       T  U  W  Z

   *  A        F  G  I  J  K  L  M  P  R  S  T  U  W  Z
      4        8  6  7  0  2  9  0  4  3  5  6  3  4  0
```

Adding C 1.
Start.
Forward.
Push.

```
   *                                           T

 >*          F  G                              T  U

   *          F  G           K        M        T  U  W  Z

   *   A      F  G  I  J  K  L  M  P  R  S  T  U  W  Z
       4      8  6  7  0  2  9  0  4  3  5  6  3  4  0
```

Adding C 1.
Down.
Forward.
Push.

```
  *                                          T

  *          F  G                            T  U

 >*          F  G        K     M             T  U  W  Z

  *  A       F  G  I  J  K  L  M  P  R  S  T  U  W  Z
     4       8  6  7  0  2  9  0  4  3  5  6  3  4  0
```

Adding C 1.
Down.
Forward.
Push.

```
  *                                       T

  *        F  G                           T  U

  *        F  G           K     M         T  U  W  Z

 >*   A    F  G  I  J  K  L  M  P  R  S   T  U  W  Z
      4    8  6  7  0  2  9  0  4  3  5   6  3  4  0

Adding C 1.
Down.
```

```
 *                                          T

 *         F   G                            T   U

 *         F   G           K       M        T   U   W   Z

 * >A      F   G   I   J   K   L   M   P   R   S   T   U   W   Z
      4     8   6   7   0   2   9   0   4   3   5   6   3   4   0
```

Adding C 1.
Forward.
At bottom.

```
  *                                           T

  *           F   G                           T   U

  *           F   G           K       M       T   U   W   Z

  * >A   C   F   G   I   J   K   L   M   P   R   S   T   U   W   Z
      4   1   8   6   7   0   2   9   0   4   3   5   6   3   4   0
```

Adding C 1.
Insert.
Heads.

```
  *                                         T

  *          F  G                           T  U

 >*          F  G           K     M         T  U  W  Z

  *    A  C  F  G  I  J  K  L  M  P  R  S  T  U  W  Z
       4  1  8  6  7  0  2  9  0  4  3  5  6  3  4  0
```

Adding C 1.
Pop.

```
  *                                           T

  *           F  G                            T  U

>*        C  F  G           K        M        T  U  W  Z

  *     A  C  F  G  I  J  K  L  M  P  R  S  T  U  W  Z
        4  1  8  6  7  0  2  9  0  4  3  5  6  3  4  0
```

Adding C 1.
Insert.
Tails.

```
 >*                                           T

   *           F   G                          T   U

   *      C    F   G         K       M         T   U   W   Z

   *   A  C    F   G   I   J K   L   M     P   R   S   T   U   W   Z
       4  1    8   6   7   0 2   9   0     4   3   5   6   3   4   0
```

Adding O 8.
Start.
Forward.
Push.

```
   *                                         T

>*           F   G                           T   U

   *       C   F   G           K       M           T   U   W   Z

   *   A   C   F   G   I   J   K   L   M       P   R   S   T   U   W   Z
       4   1   8   6   7   0   2   9   0       4   3   5   6   3   4   0
```

Adding O 8.
Down.

```
  *                                          T

  *           F >G                           T  U

  *     C  F  G        K     M               T  U  W  Z

  *  A  C  F  G  I  J  K  L  M     P  R  S  T  U  W  Z
     4  1  8  6  7  0  2  9  0     4  3  5  6  3  4  0
```

Adding O 8.
Forward.
Push.

```
 *                                           T

 *           F  G                            T  U

 *        C  F >G        K     M             T  U  W  Z

 *  A  C  F  G  I  J  K  L  M     P  R  S  T  U  W  Z
    4  1  8  6  7  0  2  9  0     4  3  5  6  3  4  0
```

Adding O 8.
Down.

```
 *                                           T

 *            F   G                          T   U

 *        C   F   G           K       >M     T   U   W   Z

 *    A   C   F   G   I   J   K   L   M     P   R   S   T   U   W   Z
      4   1   8   6   7   0   2   9   0     4   3   5   6   3   4   0
```

Adding O 8.
Forward.
Push.

```
 *                                          T

 *          F  G                            T  U

 *       C  F  G          K        M        T  U  W  Z

 *  A  C  F  G  I  J  K  L >M        P  R  S  T  U  W  Z
    4  1  8  6  7  0  2  9  0        4  3  5  6  3  4  0
```

Adding O 8.
Down.
Forward.
At bottom.

```
  *                                             T

  *           F  G                              T  U

  *        C  F  G           K        M         T  U  W  Z

  *  A  C  F  G  I  J  K  L >M  O  P  R  S  T  U  W  Z
     4  1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding O 8.
Insert.
Heads.

```
 *                                           T

 *           F  G                            T  U

 *     C  F  G        K      >M              T  U  W  Z

 *  A  C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
    4  1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding O 8.
Pop.

```
*                                              T

*           F  G                               T  U

*     C  F  G           K      >M  O           T  U  W  Z

*  A  C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
   4  1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding O 8.
Insert.
Heads.

```
 *                                              T

 *           F >G                               T  U

 *     C  F  G        K      M  O               T  U  W  Z

 *  A  C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
    4  1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding O 8.
Pop.

```
 *                                              T

 *           F >G                    O          T  U

 *      C  F  G        K      M  O               T  U  W  Z

 *   A  C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
     4  1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding O 8.
Insert.
Heads.

```
 >*                                              T

   *           F   G                   O         T   U

   *      C    F   G         K      M   O         T   U   W   Z

   *  A   C   F   G   I   J   K   L   M   O   P   R   S   T   U   W   Z
      4   1   8   6   7   0   2   9   0   8   4   3   5   6   3   4   0

Adding O 8.
Pop.
```

```
 >*                                  O           T

   *              F   G                  O           T   U

   *      C   F   G           K       M   O           T   U   W   Z

   *  A   C   F   G   I   J   K   L   M   O   P   R   S   T   U   W   Z
      4   1   8   6   7   0   2   9   0   8   4   3   5   6   3   4   0
```

Adding O 8.
Insert.
Heads.
Stack is empty.

```
 >*

  *                               O           T

  *         F  G                  O           T  U

  *      C  F  G        K      M  O           T  U  W  Z

  *   A  C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
      4  1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding O 8.
Add new top dummy.

```
 >*                               O

  *                               O               T

  *           F  G                O               T  U

  *        C  F  G           K       M  O            T  U  W  Z

  *     A  C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
        4  1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding O 8.
Insert.
Tails.

```
 >*                              O

  *                              O           T

  *           F  G               O           T  U

  *        C  F  G        K     M  O          T  U  W  Z

  *  A     C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
     4     1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding B 3.
Start.
Forward.
Push.

```
   *                               O

>*                               O           T

   *           F  G               O           T  U

   *        C  F  G        K     M  O           T  U  W  Z

   *  A     C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
      4     1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding B 3.
Down.
Forward.
Push.

```
   *                              O

   *                              O           T

  >*           F  G               O           T  U

   *        C  F  G        K     M  O           T  U  W  Z

   *  A     C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
      4     1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding B 3.
Down.
Forward.
Push.

```
   *                               O

   *                               O           T

   *           F  G                O           T  U

  >*        C  F  G        K     M  O           T  U  W  Z

   *  A     C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
      4     1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding B 3.
Down.
Forward.
Push.

```
  *                                  O

  *                                  O            T

  *              F  G                O            T  U

  *           C  F  G        K     M  O            T  U  W  Z

 >*   A       C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
      4       1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding B 3.
Down.

```
  *                               O

  *                               O           T

  *          F  G                 O           T  U

  *       C  F  G        K     M  O           T  U  W  Z

  * >A    C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
      4    1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding B 3.
Forward.
At bottom.

```
  *                               O

  *                               O           T

  *           F  G                O           T  U

  *        C  F  G        K     M  O           T  U  W  Z

  * >A     C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
     4     1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding B 3.
Forward.
At bottom.

```
 *                               O

 *                               O          T

 *             F  G              O          T  U

 *          C  F  G        K     M  O        T  U  W  Z

 * >A   B   C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
     4   3   1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0

Adding B 3.
Insert.
Heads.
```

```
    *                               O

    *                               O           T

    *           F   G               O           T   U

  >*       C   F   G       K       M   O           T   U   W   Z

    *   A   B   C   F   G   I   J   K   L   M   O   P   R   S   T   U   W   Z
        4   3   1   8   6   7   0   2   9   0   8   4   3   5   6   3   4   0
```

Adding B 3.
Pop.

```
  *                              O

  *                              O           T

  *              F   G           O           T   U

 >*      B   C   F   G       K       M   O           T   U   W   Z

  *   A   B   C   F   G   I   J   K   L   M   O   P   R   S   T   U   W   Z
      4   3   1   8   6   7   0   2   9   0   8   4   3   5   6   3   4   0
```

Adding B 3.
Insert.
Heads.

```
 *                              O

 *                              O           T

>*              F   G           O           T   U

 *      B   C   F   G       K       M   O           T   U   W   Z

 *  A   B   C   F   G   I   J   K   L   M   O   P   R   S   T   U   W   Z
    4   3   1   8   6   7   0   2   9   0   8   4   3   5   6   3   4   0
```

Adding B 3.
Pop.

```
  *                                 O

  *                                 O           T

 >*       B       F  G              O           T  U

  *       B  C    F  G        K       M  O          T  U  W  Z

  *    A  B  C    F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
       4  3  1    8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding B 3.
Insert.
Heads.

```
   *                              O

>*                              O           T

   *      B      F  G           O           T  U

   *      B  C  F  G        K      M  O         T  U  W  Z

   *  A  B  C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
      4  3  1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding B 3.
Pop.

```
    *                             O

 >*       B                       O             T

    *     B      F  G             O             T  U

    *     B  C  F  G        K     M  O          T  U  W  Z

    *  A  B  C  F  G  I  J  K  L  M  O  P  R  S  T  U  W  Z
       4  3  1  8  6  7  0  2  9  0  8  4  3  5  6  3  4  0
```

Adding B 3.
Insert.
Tails.