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Maze Extra Credit

- means path tried

1) Problem 1 will transverse less than problem 3 when the goal is left or right, more so than down/up. This is the case because the queue will always transverse what it is given first. In my scenario it was given Left, Right, Up, Down first.

Maze when 1 is faster:

```
XXXXXXXXXXXXXXXXXXXXX
S.X...X....X...XXX
X.X.X.X.XX.X..XXXX
X...X...XX.X..e.XX
XXX.X..XXX...XX.XX
XXX.XX..XX.....XX
XXX...X.XXXXXXXXXXX
XXXXXX.X.....XXX
XXXXXXXXXXXXXXXXXXXXX
```

Problem 1 iterations:

```
-----
-.X...X....X...---
X.X.X.X.XX.X.--XX
X...X...XX.X..e.XX
XXX.X..XXX...XX.XX
XXX.XX..XX.....XX
XXX...X.XXXXXXXXXXX
XXXXXX.X.....XXX
XXXXXXXXXXXXXXXXXXXXX
```

Problem 3 iterations:

```
-----X
---...-....-...-X
-.-.X.-.XX.-.-X
-...X...XX.-..e.-X
---.X..XXX...XX.XX
---.XX..XX.....XX
---...X.XXXXXXXXXXX
-----.X.....XXX
XXXXXXXXXXXXXXXXXXXXX
```

Maze when 3 is faster:

```
XXXXXXXXXXXXXXXXXXXXX
S.X...X....X...XXX
X.X.X.X.XX.X..XXXX
X...X...XX.X..X.XX
XXX.X..XXX...XX.XX
XXX.XX..XX.....XX
XXX...X.XXXXXXXXXXX
eXXXX.X.....XXX
XXXXXXXXXXXXXXXXXXXXX
```

Problem 1 iterations:

```
-----
-.X..X....X...--
X.X.X.X.--.X..---
X...X...--.X..-.-
XXX.X..---.,-.-
XXX.XX..---.....-
XXX...X,-----
eXXXX.X.....--
-----
```

Problem 3 iterations:

```
-----XXXXXXXXXXXXX
---...X....X...XXX
-.-.X.X.XX.X..XXXX
-...X...XX.X..X.XX
---.X..XXX...XX.XX
---.XX..XX.....XX
--X...X.XXXXXXXXXXX
eXXXX.X.....XXX
XXXXXXXXXXXXXXXXXXXXX
```

2) Problem 1 will transverse less than problem 2 when the goal is left or right, more so than down/up. This is the case because the queue will always transverse what it is given last. In my scenario it was given Left, Right, Up, Down first.

Maze when 1 is faster:

```
XXXXXXXXXXXXXXXXXXXXX
S.X...X....X...XXX
X.X.X.X.XX.X..XXXX
X...X...XX.X..e.XX
XXX.X..XXX...XX.XX
XXX.XX..XX.....XX
XXX...X.XXXXXXXXXXX
XXXXXX.X.....XXX
XXXXXXXXXXXXXXXXXXXXX
```

Problem 1 iterations:

```
-----
-.X...X....X...---
X.X.X.X.XX.X.--XX
X...X...XX.X..e.XX
XXX.X..XXX...XX.XX
XXX.XX..XX.....XX
XXX...X.XXXXXXXXXXX
XXXXXX.X.....XXX
XXXXXXXXXXXXXXXXXXXXX
```

Problem 2 iterations:

```
-----X
-.-...-....-...--X
-.-.X.-.-.-.-X
-...X...-.-..e.-X
---.X..---...XX.-X
---.XX..--.....-X
---...X,-----X
-----.X.....--X
XXXXXXXXXXXXXXXXXXXXX
```

Maze when 2 is faster:

```
XXXXXXXXXXXXXXXXXXXXX
S.X...X....X...XXX
X.X.X.X.XX.X..XXXX
X...X...XX.X..X.XX
XXX.X..XXX...XX.XX
XXX.XX..XX.....XX
XXX...X.XXXXXXXXXXX
exxxx.X.....XXX
XXXXXXXXXXXXXXXXXXXXX
```

Problem 1 iterations:

```
-----
-.X...X....X...---
X.X.X.X.--.X.,----
X...X...--.X.,-.-
XXX.X.,---.,--.-
XXX.XX.,--.....--
XXX...X.,-----
exxxx.X.....,---
-----
```

Problem 2 iterations:

```
XXXXXXXXXXXXXXXXXXXXX
X.X...X....X...XXX
-.X.X.X.XX.X..XXXX
-...X...XX.X..X.XX
-XX.X..XXX...XX.XX
-XX.XX..XX.....XX
-XX...X.XXXXXXXXXXX
exxxx.X.....XXX
XXXXXXXXXXXXXXXXXXXXX
```