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Lab Test - 1

A - 1

```
def search(starting_node, jugs, goal_amount,
           check_dict, IS_depth):
    goal = []
    accomplished = False
    q = collections.deque()
    q.append.left(starting_node)
    while len(q) != 0
        path = q.popleft()
        check_dict[get_index(path[-1])] = True
        if (len(path)) >= 2
            print(transition(path[-2], path[-1],
                  jugs), path[-1])
        if is.goal(path, goal_amount)
            accomplished = True
            goal = path
            break
    next_moves = next_transitions(jugs, path,
                                  check_dict)
    for i in next_moves;
        if is_depth:
            q:appendleft(i)
        else:
            q:append(i)
if accomplished:
        print("Done")
        print_path(goal, jugs)
```

```
else:
    print ("Invalid")
def transition (old, new, jugs):
    a = old [0]
    b = old [1]
    a_prime = new [0]
    b_prime = new [1]
    a_max = jugs [0]
    b_max = jugs [1]
if a > a_prime:
    if b == b_prime
        return "clear", format (a_max)
    else:
        return "pour", format (a_max, b_max)
else:
    if b > b_prime
        if a == a_prime
            return "clear", format (b_max)
        else:
            return "Pour", format (b_max, a_max)
    else:
        if a == a_prime
            return "Fill", format ( b_max)
        else:
            return "Fill", format (a_max)
```