

- 1) A stack and an array are both linear data structures that store elements in findable idem spots. Both a stack and an array have limited idem spots based on how they are created. A stack can be used by using an array.
- 2) A stack stores data in a last-in, first-out order. A compiler uses it to keep track of what happens last and uses that data within its program
- 3) 813
812
- 4) The “hot plate” problem is similar to a stack because the most recent plate, but on top of the stack of plates, is the first plate taken off. This is similar to how idems are added and removed from a stack system.
- 5) 5 8
13 12
- 6) A FIFO data structure is a structure where the first element added is the first one removed when the user wants to remove an element. A LIFO data structure is different in the order in which elements are removed. In a LIFO data structure, the last element added is the first element removed when removal is wanted. An example of this data structure is a stack.
- 7) a) In a line to check out at Walmart, the first customer to get in line is the first customer to be helped.
b) When printing documents, the first document sent to the printer is the document that will be printed first.
- 8) a)F
b)T
c)F
d)F
e)T
f)F
g)F
h)T
i)F
j)T
k)T