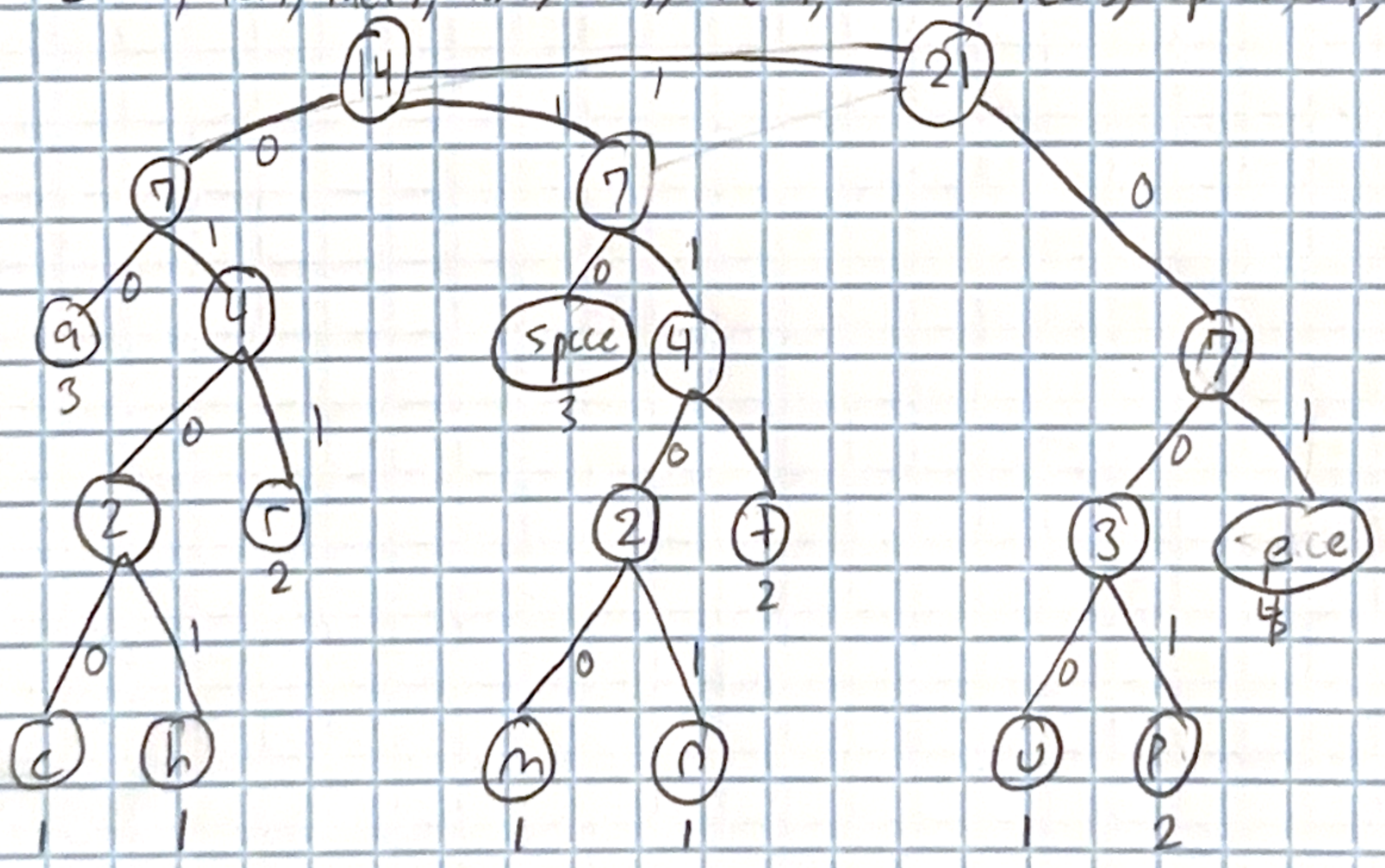
(1.) Create a Huffman Tree and generate the codes for each character of the following input:

"create a huffman tree"

↳ character frequencies:

Character	Frequency
space	3
c	1
r	2
e	4
a	3
t	2
p	2
u	1
n	1
m	1
h	1

= c: 1, h(1), m(1), n(1), u(1), p(2), r(2), t(2), space(3), a(3), e(4)



Now encode:

a = 100, c = 0100, e = 111, p = 001 h = 0101, m = 0111,
n = 1100, r = 1101, t = 000, u = 0110, space = 101

↳ 0100 1101 1111 0000 0111 1011 0001 0101 0110 0010
0101 1116 0110 0101 0001 1011 11111

(2.) a = 1101, e = 100, H = 101, L = 1110, M = 1111, n = 000,
r = 001, t = 010, u = 011, space = 1100

↳ decoded string: huffman tree