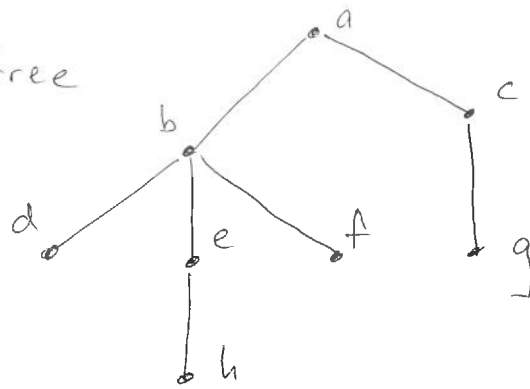Math 374. Quiz 11.

① Given this tree

(a) what is its height?
(b) write the list of nodes resulting from a
    postorder traversal.

② Construct the Huffman tree for the following
characters and frequencies, and list the Huffman codes.
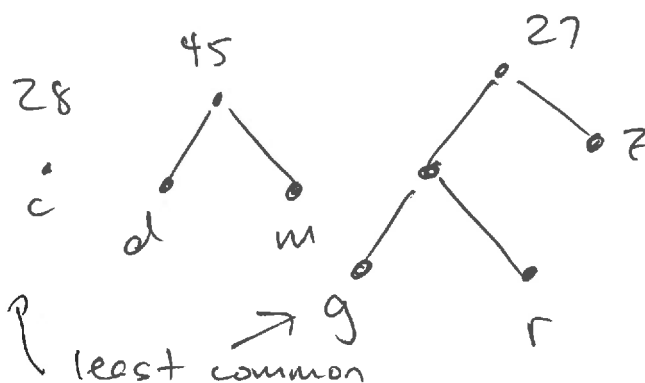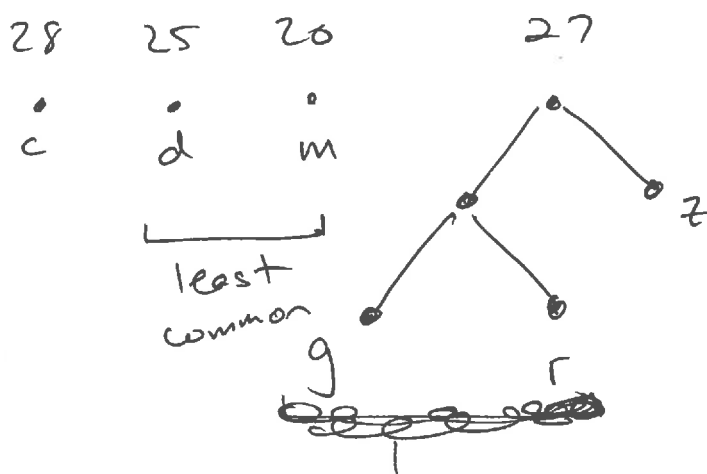
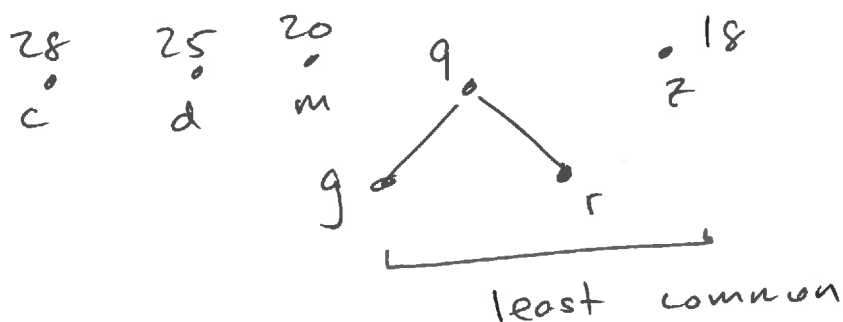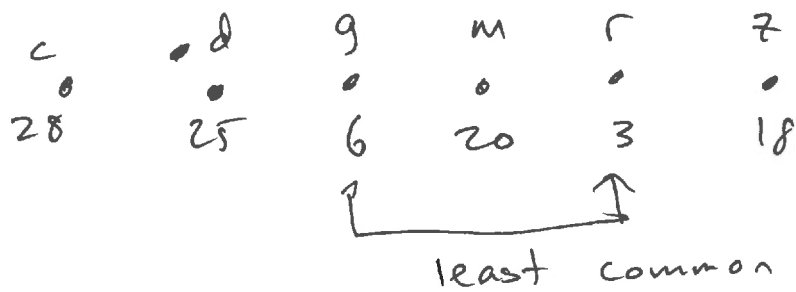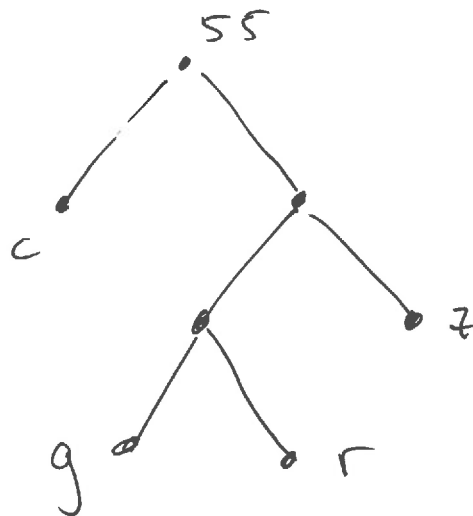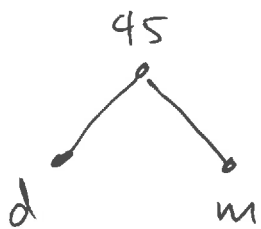| Character	c	d	g	m	r	z
Frequency	28	25	6	20	3	18

Solutions.

1. (a) 3, the maximum depth.
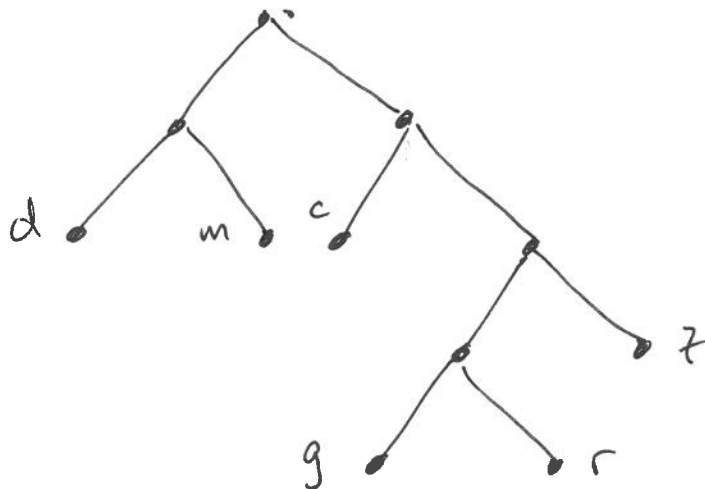
The depth of h is 3 because it has distance 3 to a.

(b) d, h, e, f, b, g, c, a

2. Step by step:

least common

least common

least common

least common

45

d   m

55

c

z

g   r

Combine:

d   m c

z

g   r

Codes: d   0 0
             m   0 1
             c   1 0
             g   1 1 0 0
             z   1 1 1
             r   1 1 0 1