

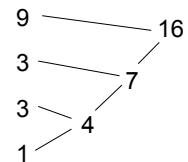
The code {A, B} (first extension)

S_i	P_i	code	Weighted length
A	$\frac{3}{4}$	0	$\frac{3}{4}$
B	$\frac{1}{4}$	1	$\frac{1}{4}$

The code {AA, AB, BA, BB} (second extension)

S_i	P_i	code	Weighted length
AA	$\frac{9}{16}$	0	$\frac{9}{16}$
AB	$\frac{3}{16}$	10	$\frac{6}{16}$
BA	$\frac{3}{16}$	110	$\frac{9}{16}$
BB	$\frac{1}{16}$	111	$\frac{3}{16}$

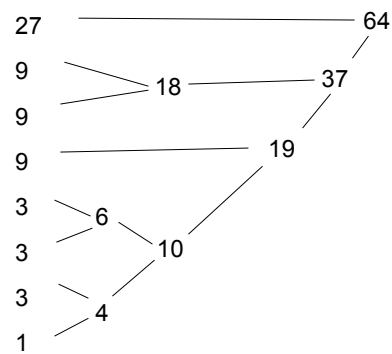
Probabilities * 16



The code {AAA, BAA, ABA, AAB, ABB, BAB, BBA, BBB} (third extension)

S_i	P_i	code	Weighted length
AAA	$\frac{27}{64}$	0	$\frac{27}{64}$
BAA	$\frac{9}{64}$	100	$\frac{27}{64}$
ABA	$\frac{9}{64}$	101	$\frac{27}{64}$
AAB	$\frac{9}{64}$	110	$\frac{27}{64}$
ABB	$\frac{3}{64}$	11100	$\frac{15}{64}$
BAB	$\frac{3}{64}$	11101	$\frac{15}{64}$
BBA	$\frac{3}{64}$	11110	$\frac{15}{64}$
BBB	$\frac{1}{64}$	11111	$\frac{5}{64}$

Probabilities * 64



Huffman Coding Examples