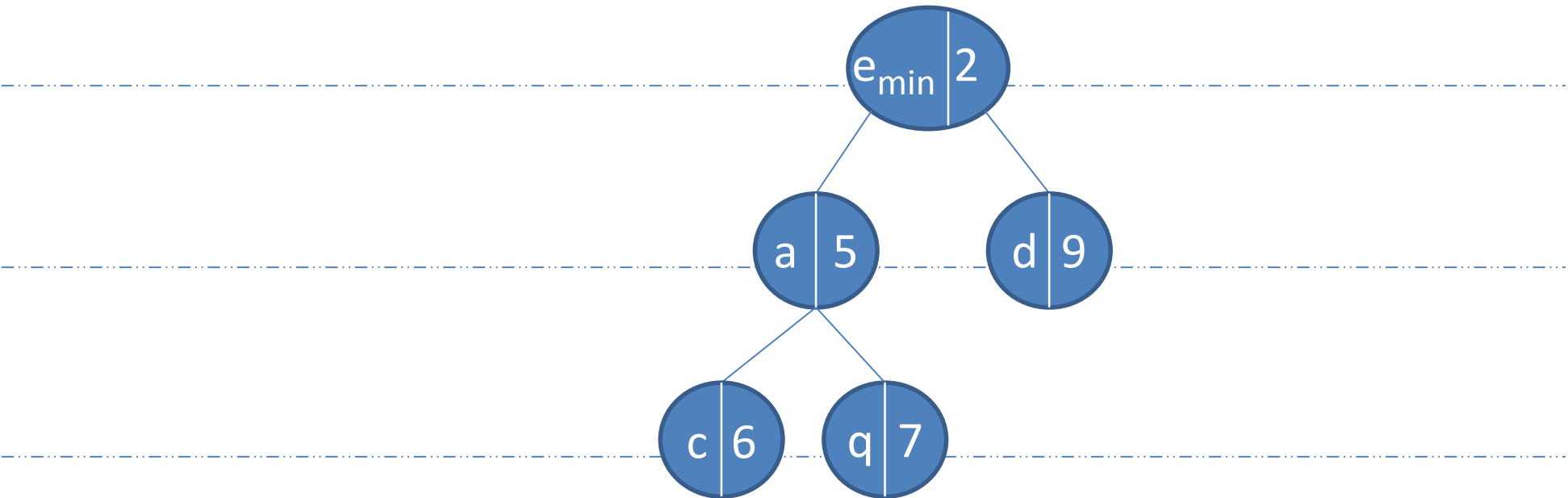
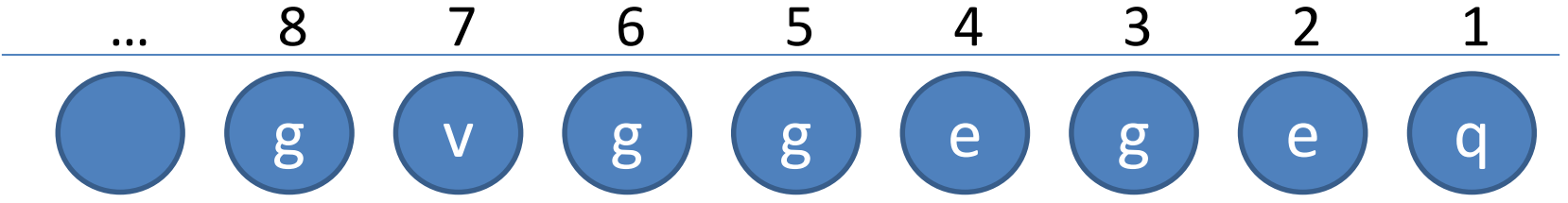


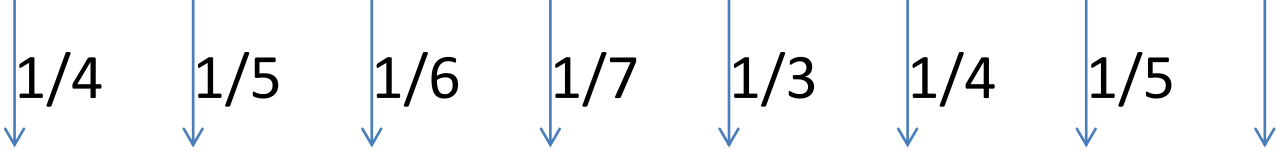
Min-heap



Stream 1



Probability



$$Pro. = \frac{1}{2f_{\min} - t_{\text{fail}} + 1}$$

Successful?

✓ ✗ ✗ ✗ ✓ ✗ ✗ 7+1

f_{min}

4 3 3 3 3 2 2 2

$$f_{\min} += \frac{t_{\text{fail}}}{f_{\min}}$$

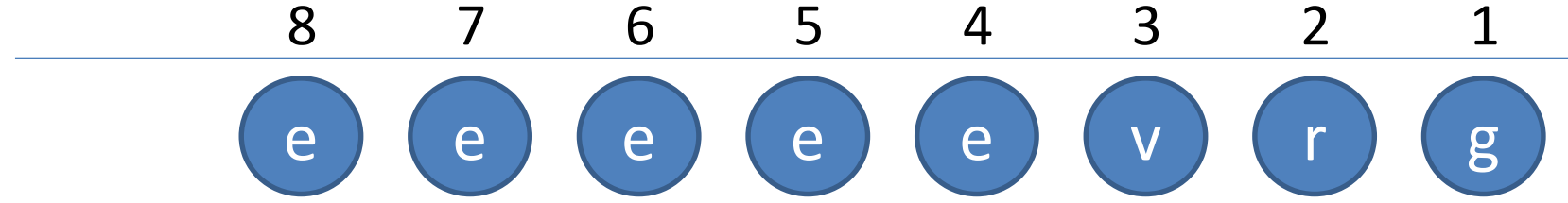
t_{fail}

0 3 2 1 0 2 1 0

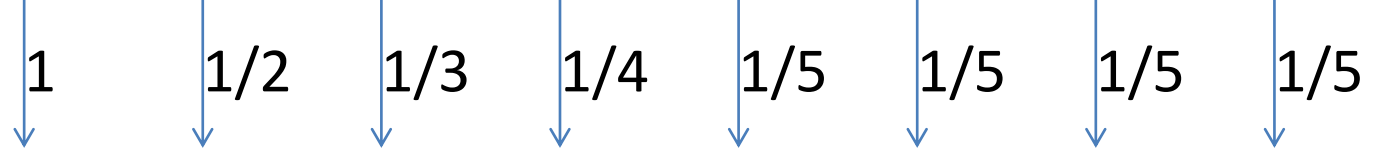
Root node

g e e e e e_{min} e_{min} e_{min}

Stream 2



Probability



Successful?

✓ ✗ ✗ ✗ ✗ ✓ ✓ ✓

f_{min}

4 2 2 2 2 2 2 2

$$f_{\min} += \frac{t_{\text{fail}}}{f_{\min}}$$

t_{fail}

0 4 3 2 1 0 0 0

Root node

e v v v v v r g