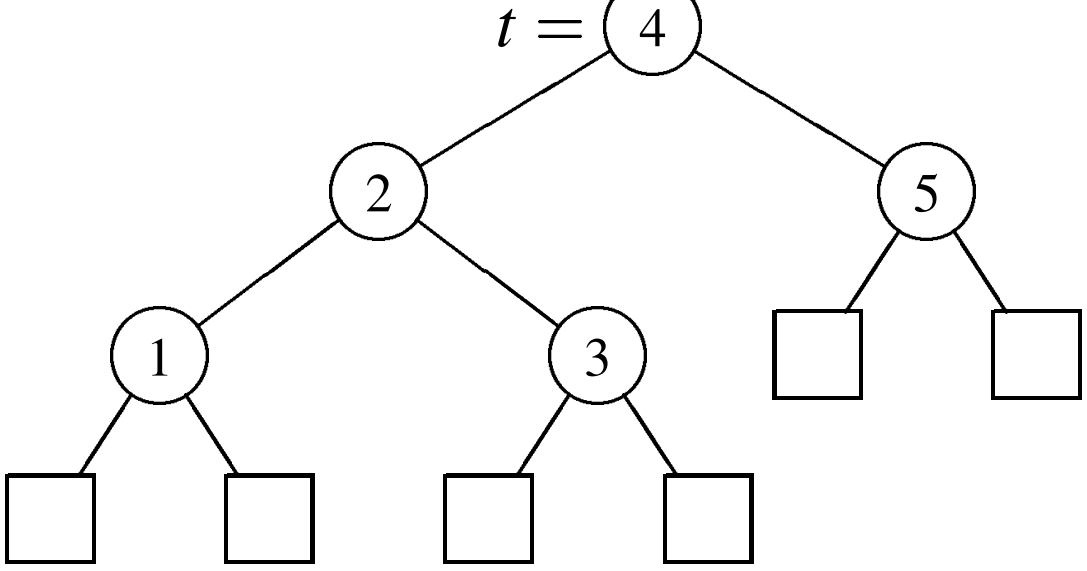

$$I(t) = 1 \cdot 1 + 2 \cdot 2 + 2 \cdot 3 = 11$$