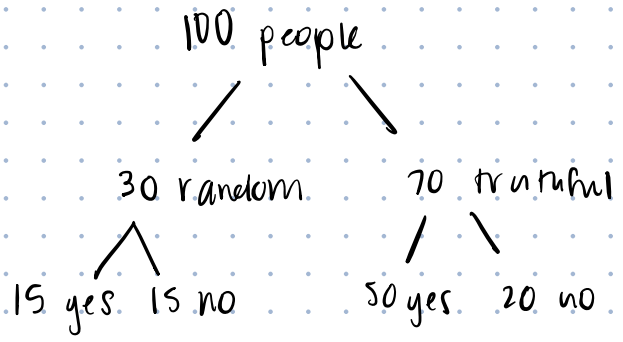
Part A Probability

R = Random Clicker
T = Truthful Clicker
Y = Yes Clicks



$$P(Y) = P(Y, Q_1) + P(Y, Q_2)$$
$$= P(Q_1) \times P(Y|Q_1) + P(Q_2) \times P(Y|Q_2)$$

$P(Y) = P(R) \times P(Y|R) + P(T) \times P(Y|T)$ → Rule of total probability

$0.65 = .3 \times .5 + .7 \times P(Y|T)$

$0.5 = .7 \times P(Y|T)$

$P(Y|T) = 0.71428 \rightarrow \times 100 =$ **71.43%**