

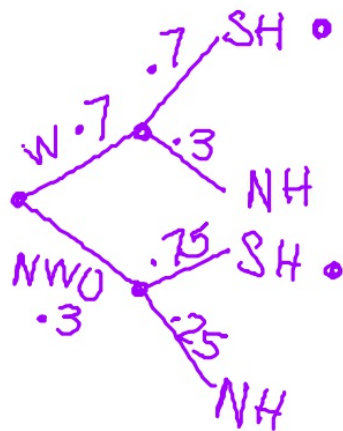
## 13.6 Review - Warm - up

In a survey conducted by a research group, 35% of a city use cable service, 49% of the city use phone service and 15% use both cable and phone services from the same provider.

1. What is the conditional probability that a cable service user of this city also uses phone service from the same provider?  $P(\text{BOTH} | \text{CABLE}) = \frac{.15}{.35} = .428 = \boxed{43\%}$

2. What is the conditional probability that a phone service user of this city also uses cable service from the same provider?  $P(\text{BOTH} | \text{PHONE}) = \frac{.15}{.49} = .306 = \boxed{31\%}$

3. An association aimed at building healthy lifestyles reported that 70% of its members worked-out. 70% of the members who worked-out stayed healthy. 75% of its members who did not workout are healthy. What percent of its members would usually stay healthy?



$$\begin{aligned} &P(\text{W AND SH}) + P(\text{NWO AND SH}) \\ &(.7)(.7) + (.3)(.75) \\ &.49 + .225 \\ &= .715 \\ &\boxed{72\%} \end{aligned}$$