

## Back to Buckets

$$P(H_1) = .8$$

$$P(H_2|H_1) = .7$$

$$P(H_2|H'_1) = .9$$

$$P(H_1 \cap H_2) = ?$$

$$P((H_1 \cap H'_2) \cup (H'_1 \cap H_2)) = ?$$

What is the probability of hitting the second basket?

Can only hit the second basket:

- After hitting the first
- After missing the first

$$P(H_2) = P((H_1 \cap H_2) \cup (H'_1 \cap H_2)) = ?$$

$$= P(H_1 \cap H_2) + P(H'_1 \cap H_2) = ?$$

$$= .56 + .18 \text{ (based off of the tree that was built)}$$