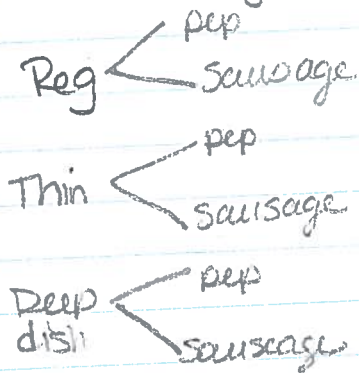


Tree Diagrams

+ Fundamental Counting Principle

You are trying to decide which pizza to order for dinner. Your choices for crust are: regular, thin, and deep dish. You want only one topping and will choose either pepperoni or sausage.

How many possible outcomes?



6 possible outcomes

Tree diagrams show every possible outcome.

FCP

Fundamental counting principle

Take the # of options + multiply them together.

$$\begin{array}{l} \text{Crust} \quad \text{Toppings} \\ 3 \quad \times \quad 2 = 6 \text{ outcomes} \end{array}$$

$$P(\text{thin, pep}) = \frac{1}{6}$$

$$P(\text{reg or deep dish}) = \frac{4}{6} = \frac{2}{3}$$