

Worksheet 4.4

Counting Techniques: Tree Diagrams, Multiplication Principle

- (1) Diners at Brothers may select their pizzas from 3 varieties of crust, 2 varieties of sauces, and 15 varieties of toppings. How many pizzas are possible consisting of crust, sauce, and one topping?
- (2) Sarah has 2 nickels, 1 dime, and 1 quarter in her pocket. She pulls out coins one at a time until she has a total of at least \$.20.
- (a) Draw a Tree diagram
- (b) How many possibilities does your tree show in which at least 3 coins are removed from her pocket?
- (c) How many outcomes have her taking at least \$.35 from her pocket?