

# Parameter passing, local variables, and return values

## Main class (in ParameterPassingTest.java)

```

public class ParameterPassingTest{
    public static void main(String args[]) {
        Dog fido, spot, rover;
        int x, y, z;

        fido = new Dog("Fido");
        spot = new Dog("Spot");
        x = 6;
        y = 8;

        fido.addTrick();
        school1(fido, x);
        school2(spot, x);
        spot = nextGeneration(fido, y);
        y = mystery(x);
    }

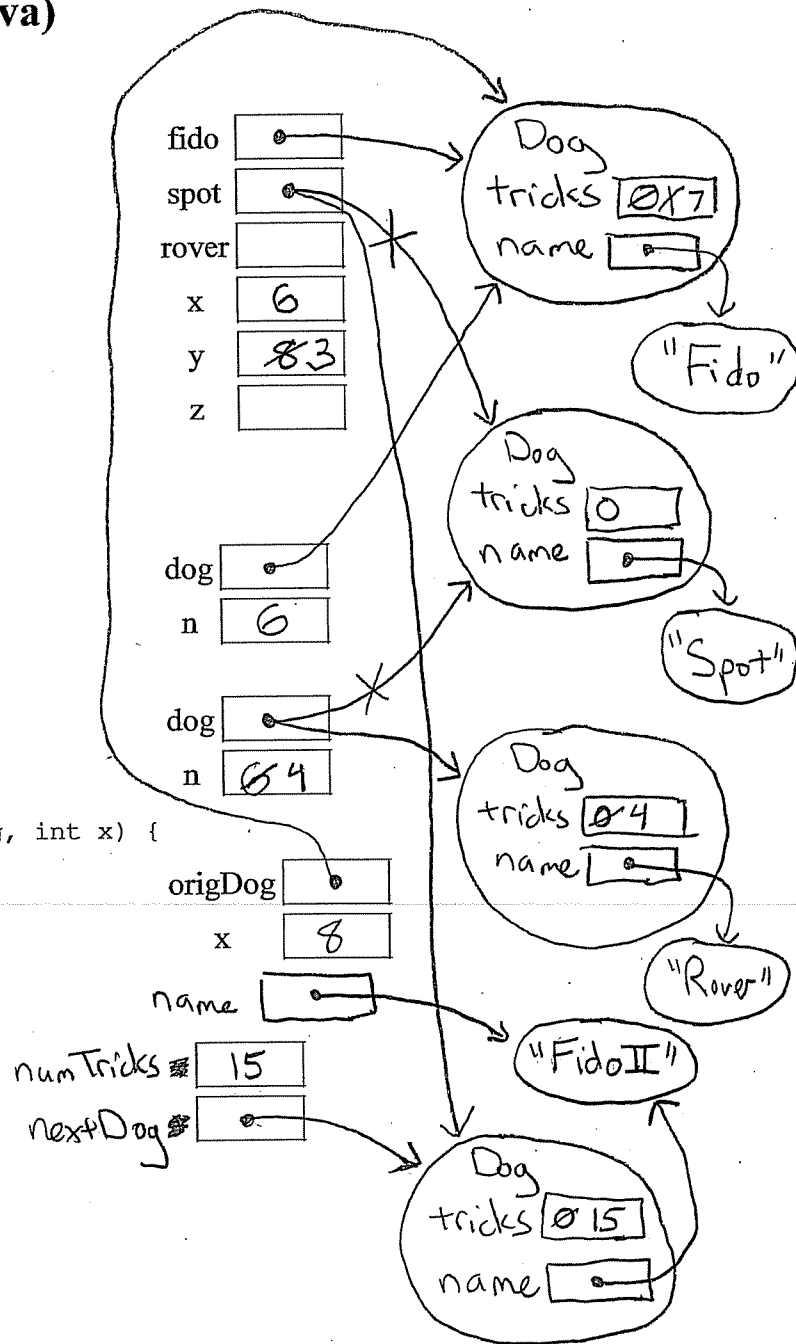
    public static void school1(Dog dog, int n) {
        dog.train(n);
    }

    public static void school2(Dog dog, int n) {
        n = 4;
        dog = new Dog("Rover");
        dog.train(n);
    }

    public static Dog nextGeneration(Dog origDog, int x) {
        String name = origDog.getName() + " II";
        int numTricks = origDog.getTricks() + x;
        Dog nextDog = new Dog(name);
        nextDog.train(numTricks);
        return nextDog;
    }

    public static int mystery(int x) {
        int y = 5 + x;
        x = y / 3;
        return x;
    }
}

```



## Dog class (in Dog.java)

```

public class Dog {
    private int tricks; // number of tricks the dog knows
    private String name; // the dog's name

    public Dog(String newName) {
        tricks = 0;
        name = newName;
    }

    public int getTricks() { return tricks; }
    public String getName() { return name; }
    public void addTrick() { tricks++; }
    public void train(int n) { tricks += n; }
}

```