

Answer Key — Week 2 Parsons Problems

For TAs only — do not distribute

Problem 1 — Vending machine change

```
public class VendingMachine {  
    public static void main(String[] args) {  
        double price = Double.parseDouble(args[0]);  
        double paid = Double.parseDouble(args[1]);  
        double change = paid - price;  
        System.out.println("Change due: $" + change);  
    }  
}
```

DISTRACTOR `double change = price - paid;`

Operands are swapped — this computes `price - paid`, which is negative for a normal purchase, instead of `paid - price`.

DISTRACTOR `System.out.println("Change due: $" + price);`

Prints the original price instead of the computed change.

Problem 2 — Pizza party split

```
public class PizzaParty {  
    public static void main(String[] args) {  
        int slices = Integer.parseInt(args[0]);  
        int friends = Integer.parseInt(args[1]);  
        int slicesEach = slices / friends;  
        int leftover = slices % friends;  
        System.out.println("Each friend gets " + slicesEach + " slices.");  
        System.out.println(leftover + " slices left over.");  
    }  
}
```

DISTRACTOR `int slicesEach = slices % friends;`

Uses `%` (remainder) instead of `/` (division) — this computes the leftover count, not the slices each friend gets.

DISTRACTOR `System.out.println("Each friend gets " + leftover + " slices.");`

Prints `leftover` instead of `slicesEach` — the message would report the wrong number of slices per friend.