

# No Taxation Without Aggravation **SOLUTION**

“**Flat tax**” means that every condiment adds a different number of cents to the original prices, which were all whole dollars. The dollar amounts are used for ordering the letters in the final answer. (Menu items are presented in alphabetical order to mix things up.)

The words BIT, ON, and OFF, plus the fact that there are five(5) condiments shown, should hint you toward BINARY. The circles at the top should hint that each condiment tax is a coin value—except for Mustard (sorry):

**Soy Sauce - 25¢**

**Mayo - 10¢**

**Relish - 5¢**

**Mustard - 2¢**

**Ketchup - 1¢**

Use the order of condiments given, most significant bit (MSB) at left. If a condiment is used in the menu item, it's a ONE(1); if not, it's a ZERO(0). Converting five-bit binary to decimal numbers 1-26 will yield letters A-Z.

We expect most teams to argue for a short while about what condiments belong on each food, but eventually the math will tell them what Fred actually puts on his menu items:

**\$1 – Corn Dog – Mustard – 00010 = 2 = B**

**\$2 – French Fries – Ketchup – 00001 = 1 = A**

**\$3 – Bridgetown Burger – Relish, Mustard, Ketchup – 00111 = 7 = G**

**\$4 – Hot Dog – Relish, Ketchup – 00101 = 5 = E**

**\$5 – Battered Fish – Mayo, Relish (Tartar Sauce) – 01100 = 12 = L**

**\$6 – Sushi Surprise – Soy Sauce, Mustard, Ketchup – 10011 = 19 = S**

(Yes, the Sushi condiment combination is pretty disgusting. That's the surprise!)

**ANSWER: BAGELS**