Write a function  **void twoWayTrafficStop(int wayOneV, int wayTwoV, int timeOfDay, int intersectionType) that** takes in four parameters: **wayOneV** (count of vehicles on way one), **wayTwoV** (count of vehicles on way two), **timeOfDay** (**1** for morning, **2** for afternoon, **3** for evening), and **intersectionType** (**1** for roundabout, **2** for traditional).

The function should print a message indicating which way should have the green signal and which should have the red signal based on the following rules:

**Conditions :**

* During the morning, the way with more vehicles should have a green signal.
* At an afternoon roundabout intersection, the way with more than 10 vehicles difference should have the green signal.
* At an afternoon traditional intersection, the way with more than 20 vehicles should have the green signal.
* During the evening, the way with fewer vehicles should have the green signal.

*Use switch statements, if-else statements, and ternary operators. Also, ensure that the function does not return a value. Don't write main(); just write the function definition.*

Solution :

Sir, the code does look long, but it is just printing the message. Please give students 20 minutes for this quiz.

**#include <stdio.h>**

**void twoWayTrafficStop(int wayOneV, int wayTwoV, int timeOfDay, int intersectionType) {**

**int difference = wayOneV - wayTwoV;**

**switch (timeOfDay) {**

**case 1: // Morning**

**if (difference > 0) {**

**printf("Green for way one, Red for way two");**

**} else if (difference < 0) {**

**printf("Green for way two, Red for way one");**

**} else {**

**printf("Green for both ways");**

**}**

**break;**

**case 2: // Afternoon**

**if (intersectionType == 1) { // Roundabout**

**if (difference > 10) {**

**printf("Green for way one, Red for way two");**

**} else if (difference < -10) {**

**printf("Green for way two, Red for way one");**

**} else {**

**printf("Green for both ways");**

**}**

**} else if (intersectionType == 2) { // Traditional**

**if (difference > 20) {**

**printf("Green for way one, Red for way two");**

**} else if (difference < -20) {**

**printf("Green for way two, Red for way one");**

**} else {**

**printf("Green for both ways");**

**}**

**}**

**break;**

**case 3: // Evening**

**if (difference > 0) {**

**printf("Green for way one, Red for way two");**

**} else if (difference < 0) {**

**printf("Green for way two, Red for way one");**

**} else {**

**printf("Green for both ways");**

**}**

**break;**

**default:**

**printf("Invalid time of day");**

**}**

**}**