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// Corey Shrader
// computations.c
// Program2
//
// Created by Corey Shrader on 9/27/15.
//
// This file contains functions which compute values used for making predictions
// about the winning and losing teams.

#include "football.h"

void compute(int HT0, int HTD, int HTS, int HTH, int HTC, int VT0, int VTD, int
    VTS, int VTR, double *preference1, double *preference2, double *preference3,
    double *preference4, double *preference5) {

    *preference1 = HT0 * OFFENSIVE_FACTOR - VTD;
    *preference2 = HTD + 2 - VT0 * OFFENSIVE_FACTOR;
    *preference3 = HTS * SPECIAL_TEAMS_FACTOR - VTS;
    *preference4 = HTH + HTC * HOME_FIELD_ADVANTAGE - VTS;
    *preference5 = HT0 * HTD * HTH * OVERALL_FACTOR - VT0 * VTD * VTR;

}

double prediction(double preference1, double preference2, double preference3,
    double preference4, double preference5) {

    return preference1 * OFFENSIVE_WORTH + preference2 * DEFENSIVE_WORTH +
        preference3 * SPECIAL_WORTH + preference4 * HOME_WORTH + preference5 *
        OVERALL_WORTH;

}

void update(int x, int y, int z, int *predictions, int *homeWins, int *visitWins)
{

    *predictions += x;
    *homeWins += y;
    *visitWins += z;

}
```