```matlab
1  % NAME: ADITYA BARMAN
2  % ROLL: 002320601024
3  % PROBLEM 2. Mean with Frequency
4
5
6  clc, clearvars, close all
7
8  f = [15, 20, 30, 18, 12, 5];
9  f_total = 0;
10 f_m_total = 0;
11
12 up_bd = [23, 28, 33, 38, 43, 48];
13 lw_bd = [19, 24, 29, 34, 39, 44];
14 midpts = ((up_bd + lw_bd)/2);
15 f_m = f .* midpts;
16
17 for i = 1:6
18     f_total = f_total + f(i);
19     f_m_total = f_m_total + f_m(i);
20 end
21
22 mean_value = (f_m_total/f_total);
23 fprintf('Mean of the data is: %.4f\n', mean_value);
24
25
26 % ============= OUTPUT =============
27
28 % Mean of the data is: 31.3500
29
30 % ==================================
```