Math 338 Name Nhi Vu

Kafai – HW 9

Import the file HW9.xlsx. The variables in this file are:

Student’s First Name

Student’s Last Name

Q1 – Q9 (Quizzes 10 points each) – Drop the lowest two and calculate a percentage

H1 – H14 (Homework 10 points each) – Drop the lowest two and calculate a percentage

T1-T3 (Tests are 100 points each)

Grade is based on the following:

Total = 0.25(T1 + T2 + T3) + 0.15 max(HW, QUIZ) + 0.10 min(HW, QUIZ)

Grading criteria:

|  |  |
| --- | --- |
| A | 90-100 |
| A- | 87 - <90 |
| B+ | 84-<87 |
| B | 80-<84 |
| B- | 75-<80 |
| C+ | 68-<75 |
| C | 55-<68 |
| C- | 50-<55 |
| D | 40-<50 |
| F | 0-<40 |

Write a SAS program that determines the students’ letter grade. Your output must at least have the following information:

Student name

Percentage due to quizzes, Homework, and Tests

Final numerical percentage

Final letter grade

Your output must be well presented with appropriate and meaningful labels and titles.

Note that all missing values are to be replaced by zeros.

options linesize=**68** nonumber nodate;

/\*\*\*Import Data\*\*Nhi Vu\*\*\*/

**PROC** **IMPORT** OUT = temp

DATAFILE= "\\Client\H$\Desktop\Math338\data\HW9.xlsx"

DBMS=xlsx REPLACE;

GETNAMES=YES;

**RUN**;

/\*\*\*Create Data Set For HW9\*\*Nhi Vu\*\*\*/

**data** HW9;

set temp;

\*Change missing value to 0;

array score(\*) Q1-Q9 H1-H14 T1-T3;

do i =**1** to dim (score);

if score[i] = **.** then score[i] = **0**;

end;

\*Drop the lowest 2 and calucalate to percentage;

call sortn(of Q1-Q9);

Q = mean(of Q3-Q9)\***100**/**10**;

call sorth(of H1-H14);

H = mean(of H3-H14)\***100**/**10**;

Total = **0.25**\*(T1 + T2 + T3) + **0.15**\*max(H,Q) + **0.10**\*min(H,Q);

label First="First name"

Last="Last name"

Q = "Quiz (%)"

H = "Homework (%)"

T1= "Test 1 (%)"

T2= "Test 2 (%)"

T3= "Test 3 (%)"

Total= "Final grade (%) and leter grade"

;

drop Q1-Q9 H1-H14 i;

**run**;

**proc** **format**;

picture g

**90**-**100** = '000.00% ' ' A '

**87**- <**90** = '00.00% ' ' A-'

**84**-<**87** = '00.00% ' ' B+'

**80**-<**84** = '00.00% ' ' B '

**75**-<**80** = '00.00% ' ' B-'

**68**-<**75** = '00.00% ' ' C+'

**55**-<**68** = '00.00% ' ' C '

**50**-<**55** = '00.00% ' ' C-'

**40**-<**50** = '00.00% ' ' D '

**0**-<**40** = '00.00% ' ' F ';

picture mypct (round) low-high='009.99%';

**run**;

**proc** **print** data=HW9 label;

format Total g. Q H T1-T3 mypct. ;

title "Homework 9 - The student's grade";

var First Last Q H T1-T3 Total;

**run**;

Homework 9 - The student's grade

Final grade

First Last Quiz Homework Test 1 Test 2 Test 3 (%) and

Obs name name (%) (%) (%) (%) (%) leter grade

1 X1 Y1 100.00% 100.00% 100.00% 100.00% 100.00% 100.00% A

2 X2 Y2 20.00% 7.92% 77.00% 10.00% 58.00% 40.04% D

3 X3 Y3 85.71% 83.75% 94.00% 92.00% 44.00% 78.73% B-

4 X4 Y4 41.43% 65.00% 84.00% 65.00% 98.00% 75.64% B-

5 X5 Y5 90.00% 97.08% 96.00% 83.00% 82.00% 88.81% A-

6 X6 Y6 45.71% 80.42% 62.00% 51.00% 57.00% 59.13% C

7 X7 Y7 90.00% 86.67% 57.00% 66.00% 62.00% 68.41% C+

8 X8 Y8 87.14% 81.67% 64.00% 84.00% 90.00% 80.73% B

9 X9 Y9 31.43% 31.25% 64.00% 0.00% 43.00% 34.58% F

10 X10 Y10 84.29% 53.75% 94.00% 83.00% 79.00% 82.01% B

11 X11 Y11 35.71% 40.83% 80.00% 0.00% 75.00% 48.44% D

12 X12 Y12 35.71% 5.00% 45.00% 0.00% 63.00% 32.85% F

13 X13 Y13 88.57% 90.00% 88.00% 95.00% 90.00% 90.60% A

14 X14 Y14 71.43% 73.33% 88.00% 58.00% 62.00% 70.14% C+

15 X15 Y15 20.00% 24.58% 0.00% 0.00% 46.00% 17.18% F

16 X16 Y16 77.14% 59.58% 57.00% 57.00% 37.00% 55.27% C

17 X17 Y17 42.86% 47.08% 77.00% 34.00% 43.00% 49.84% D

18 X18 Y18 11.43% 15.83% 0.00% 0.00% 89.00% 25.76% F

19 X19 Y19 68.57% 70.83% 40.00% 92.00% 74.00% 68.98% C+

20 X20 Y20 10.00% 19.17% 48.00% 0.00% 98.00% 40.37% D

21 X21 Y21 74.29% 82.92% 88.00% 81.00% 53.00% 75.36% B-

22 X22 Y22 94.29% 97.92% 93.00% 100.00% 78.00% 91.86% A

23 X23 Y23 51.43% 37.92% 62.00% 57.00% 99.00% 66.00% C

24 X24 Y24 55.71% 73.75% 78.00% 86.00% 98.00% 82.13% B

25 X25 Y25 48.57% 61.67% 58.00% 57.00% 81.00% 63.10% C

26 X26 Y26 35.71% 42.50% 44.00% 0.00% 60.00% 35.94% F

27 X27 Y27 95.71% 95.83% 98.00% 95.00% 63.00% 87.94% A-

28 X28 Y28 62.86% 65.83% 82.00% 90.00% 77.00% 78.41% B-

29 X29 Y29 10.00% 4.17% 0.00% 0.00% 0.00% 1.91% F

30 X30 Y30 14.29% 26.25% 0.00% 0.00% 0.00% 5.36% F

31 X31 Y31 57.14% 43.33% 90.00% 78.00% 96.00% 78.90% B-

32 X32 Y32 55.71% 62.50% 43.00% 28.00% 62.00% 48.19% D

33 X33 Y33 58.57% 93.33% 79.00% 37.00% 57.00% 63.10% C

34 X34 Y34 67.14% 50.00% 75.00% 48.00% 64.00% 61.82% C

35 X35 Y35 82.86% 66.25% 63.00% 59.00% 64.00% 65.55% C

36 X36 Y36 95.71% 87.08% 90.00% 100.00% 94.00% 94.06% A

37 X37 Y37 41.43% 68.33% 62.00% 82.00% 80.00% 70.39% C+

38 X38 Y38 22.86% 35.83% 46.00% 0.00% 45.00% 30.41% F

39 X39 Y39 25.71% 58.75% 37.00% 8.00% 88.00% 44.63% D

40 X40 Y40 21.43% 50.00% 43.00% 36.00% 88.00% 51.39% C-

41 X41 Y41 32.86% 20.83% 89.00% 77.00% 74.00% 67.01% C

42 X42 Y42 68.57% 79.58% 74.00% 68.00% 57.00% 68.54% C+

43 X43 Y43 91.43% 30.83% 98.00% 85.00% 77.00% 81.79% B

44 X44 Y44 91.43% 84.17% 53.00% 83.00% 89.00% 78.38% B-

45 X45 Y45 72.86% 70.83% 78.00% 68.00% 40.00% 64.51% C

46 X46 Y46 95.71% 95.83% 99.00% 95.00% 48.00% 84.44% B+

47 X47 Y47 71.43% 72.92% 98.00% 98.00% 88.00% 89.08% A-

48 X48 Y48 48.57% 65.00% 81.00% 71.00% 93.00% 75.85% B-

49 X49 Y49 70.00% 86.25% 60.00% 56.00% 62.00% 64.43% C

50 X50 Y50 52.86% 65.83% 63.00% 47.00% 78.00% 62.16% C