(10 points) (Save your code as "q3.do")Please use fhs.dta to answer the following questions. (From HarvardX: PH207x Exercise)

(a) How many observations are missing for glucose at exam 1 (variable name is *glucose1*)?

Ans:

(b) What is the 10th percentile of glucose level in women at exam 1?

Ans:

(c) Create a new variable, *bmihigh1*, defined as 0 if *bmi1* is less than or equal to 25 and defined as 1 if *bmi1* is greater than 25. How many individuals have *bmihigh1*=1?

Ans:

(d) Imagine we need to know each person's average BMI across each of their three exams (not the population mean, but a mean for each person in our data set).
Create a new variable called *meanbmi*. This new variable should be the average of *bmi1*, *bmi2* and *bmi3* for each respective person. Define this variable as missing if *bmi1*, *bmi2* or *bmi3* is missing.
i) What is the mean of *meanbmi* across all people for whom this value is non-missing?
ii) How many observations are non-missing?

Ans for i):

Ans for ii):

(e) In the previous question, *meanbmi* was missing for anyone with a missing observation for BMI at any exam. Let's define a new variable, *meanbmi2*, that is also the mean of *bmi1*, *bmi2* and *bmi3*, but that treats missing values differently. For a given individual, define *meanbmi2* as the mean of the non-missing values (e.g. if BMI is missing for exam 2, then *meanbmi2* is defined as the mean of *bmi1* and *bmi3*).
i) What is the mean of this variable?
ii) How many observations are non-missing?
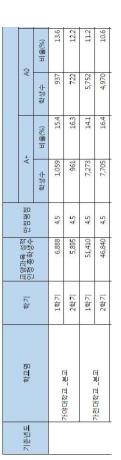
Ans for i):

Ans for ii):

# 대학알리미 – 교양과목 성적평가 분포

2015년, [교양과목 성적평가 분포_(대학)]

| 기준년도 | 학교명 | 학기 | 교양과목 성적 인정 총학생수 | 만점평점 | A+ 학생수 | A+ 비율(%) | A0 학생수 | A0 비율(%) |
|---|---|---|---|---|---|---|---|---|
| | 가0대학교_분교 | 1학기 | 6,888 | 4.5 | 1,059 | 15.4 | 937 | 13.6 |
| | | 2학기 | 5,895 | 4.5 | 961 | 16.3 | 722 | 12.2 |
| | 가1대학교_분교 | 1학기 | 51,410 | 4.5 | 7,273 | 14.1 | 5,752 | 11.2 |
| | | 2학기 | 46,840 | 4.5 | 7,705 | 16.4 | 4,970 | 10.6 |

- 다음 항목 조회: **2015년 - 학생 – 교양과목 성적평가 분포 – 대학 (270개 4년제 대학의 1학기와 2학기 540개 관찰치 생성됨)**
- 엑셀 파일로 추출

**1. 2014년 2학기 기준으로 {A+, A0, A-}를 합한 A의 비율이 가장 높은 대학과 가장 낮은 대학을 찾으세요.**

**2-1. 'A-'없이 'A+'과 'A0'만 부여하는 학교는 몇 개 학교인가요?**

**2-2. 위 학교 중 'A0'을 받은 학생수와 비교하여 'A+'을 가장 후하게 준 상위 3개 학교를 찾으세요.**