

This quiz covers material from section 8.3. Show your work.

1. (4 points) A survey of the ages University students is conducted. In the 17–23 age range, the following data are obtained.

Age	Percentage of students
17	1%
18	26%
19	23%
20	19%
21	16%
22	10%
23	5%

- a. (2 pts) Calculate the expected age of a randomly selected student.
- b. (2 pts) Calculate the variance of this distribution

2. (4 points) Acme Stanley Investments offers two mutual funds. The anticipated returns from price appreciation and dividends (in hundreds of dollars) are described by the following probability distribution:

Mutual Fund A

Returns	Probability
-10	.15
-5	.2
0	.1
5	.2
10	.35

Mutual Fund B

Returns	Probability
-10	.2
-5	.1
0	.3
5	.3
10	.1

- a. (2 pts) Calculate the expected return of both mutual funds. Which is greater?
- b. (2 pts) In which investment would the element of risk be less (that is, find the lower variance/standard deviation).