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AMERICAN UNIVERSITY of AFGHANISTAN

Quantitative Methods for Business

QMB500

Mid-Term Exam, Fall Semester 2014, November 2

5:00 pm-7:45 pm

Name:

DAVID Fox

Students Number:

18779

Q1)
$$\bar{X} = \frac{43 + 35 + 34 + 58 + 30 + 30 + 36}{7} = \frac{266}{7} = 38$$

$$\sigma^2 = \frac{\sum_{i=1}^n (X_i - \bar{X})^2}{n-1}$$

$$\sigma^2 = \frac{(43-38)^2 + (35-38)^2 + (34-38)^2 + (58-38)^2 + (30-38)^2 + (30-38)^2 + (36-38)^2}{6}$$

$$= \frac{5^2 + (-3)^2 + (-4)^2 + 20^2 + (-8)^2 + (-8)^2 + (-2)^2}{6}$$

$$= \frac{25 + 9 + 16 + 400 + 64 + 64 + 4}{6}$$

It only shows
more variance in
Eastern U.S.
5/10

a.
$$\bar{X} = 38$$

$$\sigma^2 = \frac{582}{6} = 97$$

10/10

b. The lower variance and standard deviation would indicate more intense competition