Name:_____   Class Period:_____

Ch 4.2 Finding Means and Standard Deviations for Probability Distribution tables

Find the mean, variance, and standard deviations for the following tables.

1. In an effort to determine fair and equitable reimbursement rate for various dental services performed, most insurance companies keep accurate records on the charges submitted by clients. Equix Insurance reported the following charges.

Charge x	Probability $p(x)$
$ 60	0.16
70	0.18
75	0.27
85	0.19
90	0.11
100	0.09

2. The following table reports the number of child abuse cases that one social agency in Miami receives daily.

Number of Reports x	Probability $p(x)$
0	0.05
1	0.43
2	0.17
3	0.25
4	0.06
5	0.03
6	0.01

3. The U.S. Bureau of Census collects data on family size and publishes the results in Current Population Reports. In Danville the number of children that a family has and corresponding probabilities are as follows:

Size of Family x	Probability $p(x)$
0	0.09
1	0.31
2	0.24
3	0.18
4	0.08
5	0.04
6	0.03
7	0.02
8	0.01

5. The Food and Nutrition Board of the National Academy of Sciences recommends adults consume at least 800 mg of calcium a day. Many social agencies content that people with incomes below the official poverty level consume less than the recommended daily allowance of 800 mg. Various studies of people with incomes below poverty level disclosed the following results:

Daily Intake of Calcium (mg) x	Probability $p(x)$
200	0.04
300	0.06
400	0.11
500	0.16
600	0.18
700	0.21
800	0.24

6. In Residential Energy Consumption and Expenditures published by the U.S. Energy Administration, recorded the following for one northeastern city:

Annual Residential Energy Consumption (in million BTU) x	Probability $p(x)$
80	0.11
90	0.14
100	0.19
110	0.21
120	0.18
130	0.13
140	0.04

7. A survey of the number of video cassette recorders (VCRs) that a family in Dover owns produced the following results:

Number of VCRs x	Probability $p(x)$
0	0.07
1	0.36
2	0.29
3	0.13
4	0.09
5	0.06