

Let  $U = S = \mathbb{Z}$  (the sample space is the integers).

Let the data be described as  $X_1, X_2, X_3, X_4$  (as in problem 1), as  $X_1, X_2, X_3, X_4, X_5$  (as in problem 2) etc.

1. Let the data set be  $D_1 = \{1, 2, 3, 4\}$

Find:

- |   |                                    |   |
|---|------------------------------------|---|
| A. the mode of the sample                 | B. The median of the sample        | C. the arithmetic mean (sample mean) of the sample. |
| D. the geometric mean of the sample.      |                                    | E. the harmonic mean of the sample.                 |
| F. find the deviation of $X_1$            | G. find the variance of the sample | H. find the standard deviation of the sample        |
| I. find the mean absolute deviation (MAD) |                                    | J. find the range                                   |

2. Let the data set be  $D_2 = \{1, 2, 2, 3, 4\}$

Find:

- |                                |                                    |  |
|--------------------------------|------------------------------------|--|
| F. find the deviation of $X_1$ | G. find the variance of the sample | H. find the standard deviation of the sample |
|--------------------------------|------------------------------------|--|

3. Let the data set be  $D_3 = \{1, 2, 3, 3, 4\}$

Find:

- |                                |                                    |  |
|--------------------------------|------------------------------------|--|
| F. find the deviation of $X_1$ | G. find the variance of the sample | H. find the standard deviation of the sample |
|--------------------------------|------------------------------------|--|

4. Let the data set be  $D_4 = \{1, 3, 3, 3, 4\}$

Find:

- |   |                                    |  |
|---|------------------------------------|--|
| F. find the deviation of $X_1$  | G. find the variance of the sample | H. find the standard deviation of the sample |
| I. find an approximation for the standard deviation to accurate to 3 significant figures. |                                    |  |

5. Let the data set be  $D_5 = \{1, 2, 2, 3, 3, 4\}$

Find:

- |   |                                    |  |
|---|------------------------------------|--|
| F. find the deviation of $X_1$  | G. find the variance of the sample | H. find the standard deviation of the sample |
| I. find an approximation for the standard deviation to accurate to 3 significant figures. |                                    |  |

6. Let the data set be  $D_6 = \{1, 1, 1, 4, 4, 4\}$

Find:

- |                                      |                                    |   |
|--------------------------------------|------------------------------------|---|
| A. the mode of the sample            | B. The median of the sample        | C. the arithmetic mean (sample mean) of the sample. |
| D. the geometric mean of the sample. |                                    | E. the harmonic mean of the sample.                 |
| F. find the deviation of $X_1$       | G. find the variance of the sample | H. find the standard deviation of the sample        |