

NAME:

CLASS:

CHAPTER 8: MEASURES OF DISPERSION FOR UNGROUPED DATA

SUBTOPIC 8.2 : MEASURES OF DISPERSION

Calculate the variance and standard deviation of each of the following sets of data.

1. 8, 9, 11, 12, 13, 16

$$\text{Mean, } \bar{x} = \frac{8 + \boxed{} + \boxed{} + \boxed{} + \boxed{} + \boxed{}}{\boxed{}} = \boxed{}$$

$$\text{Variance, } \sigma^2 = \frac{8^2 + \boxed{}^2 + \boxed{}^2 + \boxed{}^2 + \boxed{}^2 + \boxed{}^2}{\boxed{}} - 11.5^2$$

$$= \boxed{}$$

$$\text{Standard deviation, } \sigma = \sqrt{6.92} = \boxed{}$$

2.

Age, x	Frequency, f	fx	x ²	fx ²
1	1	1		1
2	3			
3	8			
4	6			
5	7			
	$\sum f =$	$\sum fx =$		$\sum fx^2 =$

Mean, $\bar{x}$

$$= \frac{\sum fx}{\sum f}$$

$$= \frac{\boxed{}}{\boxed{}} = \boxed{}$$

$$\text{Variance, } \sigma^2 = \frac{\sum fx^2}{\sum f} - \bar{x}^2 = \frac{\boxed{}}{\boxed{}} - \boxed{} = \boxed{}$$

$$\text{Standard deviation, } \sigma = \sqrt{\frac{\sum fx^2}{\sum f} - \bar{x}^2} = \sqrt{\boxed{}} = \boxed{}$$

Cikgu_Wanie7 **5**