Statistics & Probability **Practice With Standard Deviation & Percentiles**

Name_____ **Date**_____ **Period**_____ **Score**_____

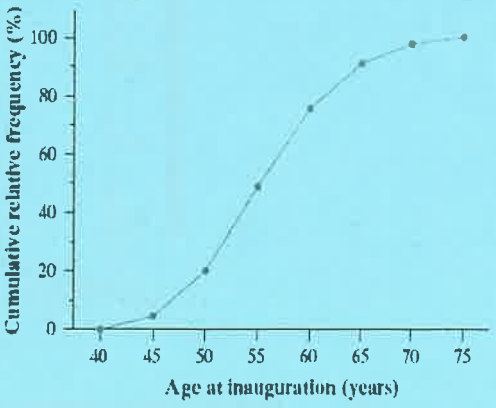
MATCHING: Write the letter of the answer that matches the problem by calculating the standard deviation of each set of values.

_____1.	10, 12, 28, 33, 54, 85, 69, 74, 72, 79, 80	a.	136.39
_____2.	20, 13, 45, 83, 47, 25	b.	170.78
_____3.	170, 271, 372, 573, 274	c.	28.04
_____4.	54, 64, 37, 68, 89, 80, 50	d.	87.22
_____5.	80, 91, 22, 76, 17, 86, 74, 90	e.	28.72
_____6.	100, 200, 300, 400, 500, 600	f.	27.01
_____7.	5, 15, 25, 35, 45, 55, 65, 75, 85, 95	g.	16.55
_____8.	4, 16, 32, 64, 128, 256	h.	23.34

9. **Use the graph at the right to help answer each question.**

a) **Was Barack Obama, who was first inaugurate at age 47, unusually young?**

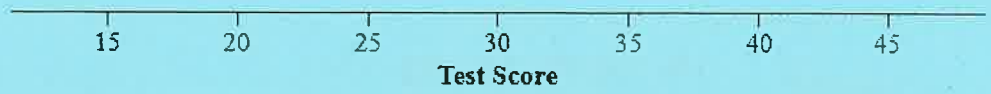
b) **Estimate and interpret the 65th percentile of the distribution.**



10. There are 25 students in Mr. Tabor's statistics class. He gives them a first test worth 50 points. Here are the student's scores:

35	18	37	38	42	41	25	37	36	32	12	43	31
29	32	48	44	45	38	40	45	38	38	40	22	

a) Make a dotplot of this data.



b) Find the percentile for Jacob, who scored 18 on the test. _____

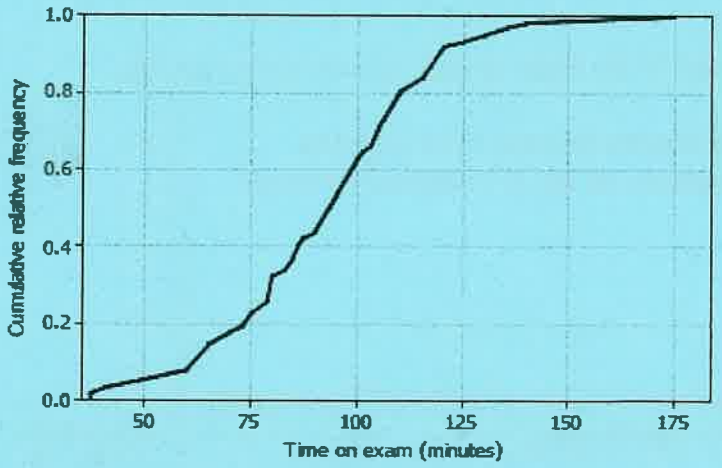
c) Maria's test score is at the 48th percentile of the distribution. _____
Interpret this value in context.

_____

_____

d) What score did Maria earn?

11. Below is a cumulative relative frequency graph for the length of time a group of 62 students spent on a no-time-limit final exam in Algebra II.



a) What is the median for the amount of time these students spent on the exam?

b) What is the interquartile range for the amount of time these students spent on the exam?

Draw lines on the graph to show how you arrived at your answers.