

Name_____

Period_____

Date_____

Ages of Executives The ages of a sample of 100 executives are listed.

27	28	31	32	32	33	35	36	36	36	36	37	38	39	39	40	40
40	41	41	41	42	42	42	42	42	42	42	43	43	43	44	44	45
45	46	47	47	47	47	47	48	48	48	48	48	49	49	49	49	49
49	50	50	51	51	51	51	51	51	52	52	52	53	53	54	54	54
54	54	54	54	54	55	56	56	56	57	57	57	59	59	59	60	60
60	61	61	61	62	62	63	63	63	63	64	65	67	68	74	82	

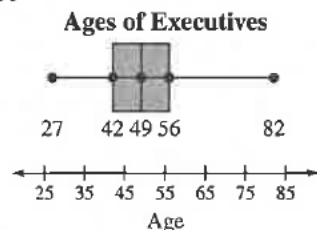
- (a) Find the five-number summary.
- (b) Draw a box-and-whisker plot that represents the data set.
- (c) Interpret the results in the context of the data.
- (d) On the basis of this sample, at what age would you expect to be an executive? Explain your reasoning.
- (e) Which age groups, if any, can be considered unusual? Explain your reasoning.

Solution

27	28	31	32	32	33	35	36	36	36	36	37	38	39	39	40	40	40	41	41
41	42	42	42	42	42	42	43	43	43	44	44	45	45	46	47	47	47	47	47
48	48	48	48	48	49	49	49	49	49	49	50	50	51	51	51	51	51	51	52
52	52	53	53	54	54	54	54	54	54	54	54	55	56	56	56	57	57	57	59
59	59	60	60	60	61	61	61	62	62	63	63	63	63	64	65	67	68	74	82
					Q_1						Q_2						Q_3		

, Min = 27, $Q_1 = 42$, $Q_2 = 49$, $Q_3 = 56$, Max = 82

b.



- c. Half of the executives are between 42 and 56 years old.
- d. About 49 years old because half of the executives are older and half are younger.
- e. The age groups 20-29, 70-79, and 80-89 would all be considered unusual because they are more than two standard deviations from the mean.

Introduction To Statistics Unit 2 February ECR Grading Rubric

Grading Criteria	Points
One point per correct response in the five-number summary	+5
Correct response to b)	+1
Correct response to c)	+1
Correct response to d)	+1
Correct response to e)	+1

Total Points	0	1-2	3-4	5-7	8-9
Genesis Grade	59	69	79	89	100