Name _____

Grading using "The Curve"

When grading using "the curve", the percentages are as follows:

- **A:** Top 10% of scores
- **B:** Scores between P_{70} and P_{90}
- **C:** Middle 40% (scores between P_{30} and P_{70})
- **D:** Scores between P_{10} and P_{30}
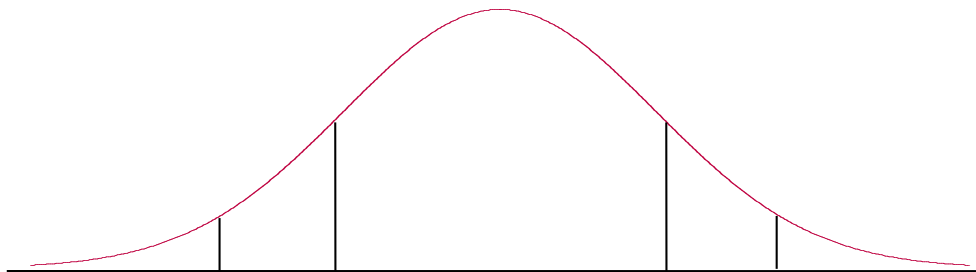- **F:** Bottom 10% of scores

10% 20% 40% 20% 10%

P_{10} P_{30} P_{70} P_{90}
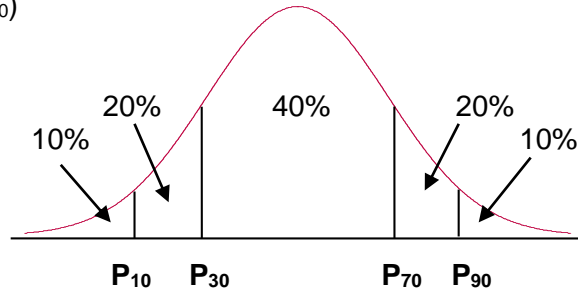
CLASS #1: Suppose that the exam grades for **Class #1** are as follows:

35	44	46	47	48	51	54	55	55	57
57	58	59	60	60	60	60	61	62	64
68	69	70	72	73	75	75	77	82	85

$\mu = 61.3$ $\sigma = 11.5$

a) Using the mean and standard deviation above and StatCrunch, determine "the curve" cutoffs.
Round these test grade cutoffs to one decimal.
Label them underneath the curve.

Test Grades →

b) Use the picture you created in part (a) to fill in the chart below with the *new* range of scores for each letter grade under this plan. Then, look at the 30 test grades and count how many test grades would fall in each letter grade based on the *new* scale.

Letter Grade	Range of Scores	Number of Tests
A	_____ to 100	
B		
C		
D		
F	0 to _____	

CLASS #2: Suppose that the exam grades for **Class #2** are as follows:

55	64	66	67	68	71	74	75	75	77
77	78	79	80	80	80	80	81	82	84
88	89	90	92	93	95	95	97	100	100

$\mu = 81.1$ $\sigma = 11.1$

c) Using the mean and standard deviation above and StatCrunch, determine "the curve" cutoffs. Round these test grade cutoffs to one decimal.
Label them underneath the curve.
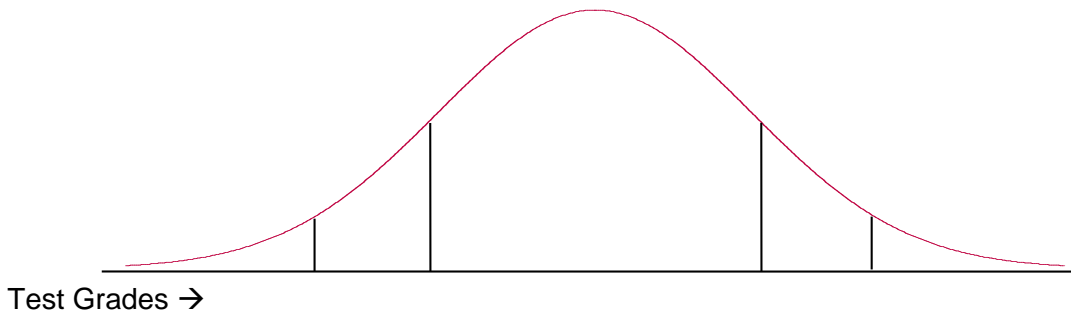
Test Grades →

d) Use the picture you created in part (c) to fill in the chart below with the *new* range of scores for each letter grade under this plan. Then, look at the 30 test grades and count how many test grades would fall in each letter grade based on the *new* scale.

Letter Grade	Range of Scores	Number of Tests
A	_____ to 100	
B		
C		
D		
F	0 to _____	

Final Question:
Write a paragraph explaining whether or not you think "Grading using the Curve" is fair and WHY. Consider how the grades were affected in BOTH classes. Give a statistical argument, don't just give your "feelings". Use complete sentences and proper grammar. Write (or type) in the space provided.