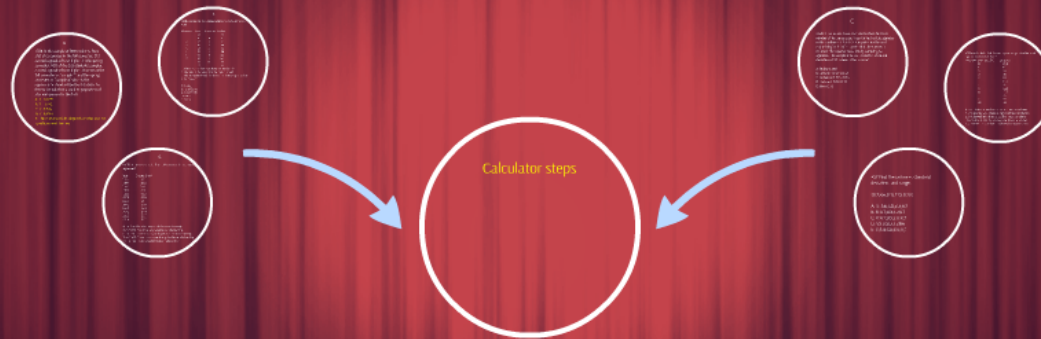




# Calculator Steps

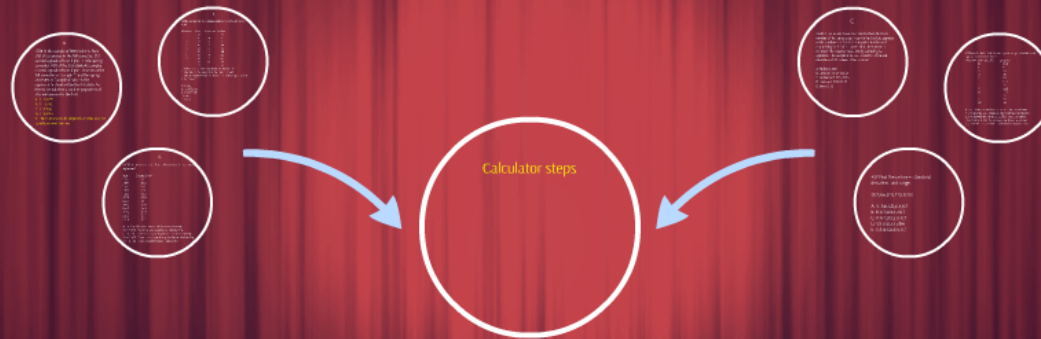
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# Calculator Steps

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# The Cases

B

\*358 In the sample of 500 students from statistics courses in the fall semester, 312 earned a grade of C or higher. In the spring semester, 800 of the 525 students sampled earned a grade of C or higher. If we treat the fall semester as "sample 1" and the spring semester as "sample 2," what is the appropriate standardized test statistic to determine whether a smaller proportion of students passed in the fall?

- A.  $z = 6.699$
- B.  $z = 4.792$
- C.  $z = 4.792$
- D.  $z = 6.699$
- E. The  $z$ -test statistic depends on the level of significance of the test

C

400 Compare the two datasets below. Which statement is true?

Hours	Test	Hours	Hours
1	81	1	75
0	40	0	69
2	46	2	95
3	26	3	80
6	28	6	42
4	25	4	70
7	44	7	60
2	38	2	52
0	58	0	78
1	93	1	76

- 1. Hours is a better predictor of final grade.
- 2. The sum of the residuals is the same for both.
- 3. The unexplained variation in the first is much greater than in the second.

- A. Only 1
- B. 1 and 2 only
- C. Both 1 and 2
- D. Only 3
- E. Only 1 and 3

C

403 From the census data, find  $r$ . What does  $r$  tell us about depression?

Year	Percent (billion)
1995	37.3
1996	36.5
1997	36.4
1998	37.6
1999	36.5
2000	37.4
2001	37.1
2002	38.9
2003	38.1
2004	43.9
2005	36.7
2006	43.1

- A.  $r = 0.238$ . There is a very weak linear relationship.
- B.  $r = 0.238$ . There is a very weak linear relationship.
- C.  $r = 0.488$ . There is a very weak positive linear relationship.
- D.  $r = 0.488$ . There is a very weak negative linear relationship.
- E.  $r = 0.488$ . There is no relationship.

Calc

B

#358 In the sample of 500 students from statistics courses in the fall semester, 312 earned a grade of C or higher. In the spring semester, 400 of the 525 students sampled earned a grade of C or higher. If we treat the fall semester as "sample 1" and the spring semester as "sample 2", what is the appropriate standardized test statistic to determine whether a smaller proportion of students passed in the fall?

A:  $z = -6.699$

B:  $z = -4.792$

C:  $Z = 4.792$

D:  $Z = 6.699$

E: The z-test statistic depends on the level of significance of the test



C

#100 compare the two datasets below. Which statement is true?

Absences	Final	Absences	Midterm
1	81	1	75
0	90	0	80
2	86	2	91
3	76	3	80
6	51	6	62
4	75	4	90
7	44	7	60
2	81	2	82
0	94	0	88
1	93	1	86

1. Absences are a better predictor of final grade.
2. The sum of the residuals is the same for both.
3. The unexplained variation in the final is much greater than in the midterm.

- A: 1 only  
B: 1 and 3 only  
C: 1 and 2 only  
D: 2 only  
E: 3 only