

### Example

Please, review this example to have a better understanding what work should be typed in the last column.

Question:

- 11) The annual precipitation amounts in a certain mountain range are normally distributed with a mean of 98 inches, and a standard deviation of 14 inches. What is the probability that the mean annual precipitation during 49 randomly picked years will be less than 100.8 inches? 11) \_\_\_\_\_
- A) 0.0808                      B) 0.4192                      C) 0.9192                      D) 0.5808

Answer:

| Question | Answer | Work                                     |
|----------|--------|------------------------------------------|
| 11       | C      | Normalcdf (-1E99, 100.8, 98, 2) = 0.9192 |
|          |        |                                          |
|          |        |                                          |

Or

Question:

- 3) A laboratory tested twelve chicken eggs and found that the mean amount of cholesterol was 218 milligrams with  $s = 18.7$  milligrams. Construct a 95% confidence interval for the true mean cholesterol content of all such eggs. 3) \_\_\_\_\_
- A)  $206.1 \text{ mg} < \mu < 229.9 \text{ mg}$                       B)  $206.0 \text{ mg} < \mu < 230.0 \text{ mg}$   
C)  $208.3 \text{ mg} < \mu < 227.7 \text{ mg}$                       D)  $206.2 \text{ mg} < \mu < 229.8 \text{ mg}$

Answer:

| Question | Answer | Work                                               |
|----------|--------|----------------------------------------------------|
| 3        | A      | T Interval, $x=218$ , $s=18.7$ , $n=12$ , $CL=.95$ |
|          |        |                                                    |
|          |        |                                                    |