

Confidence Intervals for Means Practice

Name _____

Date 9/11/2026 _____

Use $\bar{x} \pm 2\sigma/\sqrt{n}$ and reduce both endpoints exactly.

A sample has $\bar{x}=48$, known $\sigma=7$, and $n=16$.
Using $z^*=2$, construct the confidence interval for μ .

1.

A sample has $\bar{x}=63$, known $\sigma=5$, and $n=25$.
Using $z^*=2$, construct the confidence interval for μ .

4.

A sample has $\bar{x}=78$, known $\sigma=6$, and $n=25$.
Using $z^*=2$, construct the confidence interval for μ .

2.

A sample has $\bar{x}=54$, known $\sigma=4$, and $n=9$. Using
 $z^*=2$, construct the confidence interval for μ .

5.

A sample has $\bar{x}=60$, known $\sigma=4$, and $n=4$. Using
 $z^*=2$, construct the confidence interval for μ .

3.

A sample has $\bar{x}=46$, known $\sigma=8$, and $n=9$. Using
 $z^*=2$, construct the confidence interval for μ .

6.

Confidence Intervals for Means Practice — Answer Key

Name _____

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Use $\bar{x} \pm 2\sigma/\sqrt{n}$ and reduce both endpoints exactly.

A sample has $\bar{x}=48$, known $\sigma=7$, and $n=16$.
Using $z^*=2$, construct the confidence interval for μ .

1.

Answer: $[89/2, 103/2]$

A sample has $\bar{x}=63$, known $\sigma=5$, and $n=25$.
Using $z^*=2$, construct the confidence interval for μ .

4.

Answer: $[61, 65]$

A sample has $\bar{x}=78$, known $\sigma=6$, and $n=25$.
Using $z^*=2$, construct the confidence interval for μ .

2.

Answer: $[378/5, 402/5]$

A sample has $\bar{x}=54$, known $\sigma=4$, and $n=9$. Using
 $z^*=2$, construct the confidence interval for μ .

5.

Answer: $[154/3, 170/3]$

A sample has $\bar{x}=60$, known $\sigma=4$, and $n=4$. Using
 $z^*=2$, construct the confidence interval for μ .

3.

Answer: $[56, 64]$

A sample has $\bar{x}=46$, known $\sigma=8$, and $n=9$. Using
 $z^*=2$, construct the confidence interval for μ .

6.

Answer: $[122/3, 154/3]$