**Quiz #13**

Recall the formula for the standard error of a mean:

The table below has three pairs of samples, summarized by size, mean, standard deviation. In one pair, sample 1 has the wider 95% CI. In another pair, sample 2 has the wider 95% CI. In the remaining pair, the CIs are the same width. Which is which?

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| --- | --- | --- |
| **Population** | **Sample 1** | **Sample 2** |
| Density of invasive green crabs in San Francisco Bay | 40 sites in The Bay with mean density 2.3 crabs m2 and standard deviation of 0.5 crabs m2 | 20 sites in The Bay with mean density 4.1 crabs m2 and standard deviation of 0.5 crabs m2 |
| PM 2.5 air pollution in parks near I-5 | 100 monitoring stations along I-5 with mean PM 2.5 of 100 µg/m³ and standard deviation of 15 µg/m³ | 100 monitoring stations along I-5 with mean PM 2.5 of 200 µg/m³ and standard deviation of 15 µg/m³ |
| Biomass of native grasses in pastures under regenerative pasture management | 50 pastures with mean native grass biomass of 800 kg ha-1 and standard deviation of 150 kg ha-1 | 50 pastures with mean native grass biomass of 800 kg ha-1 and standard deviation of 100 kg ha-1 |