

STANDARD DEVIATION APPS

TEXT: 2.5, 2.6, 2.7

LAST NAME	FIRST NAME	DATE
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1 (4 points). Given a sample with mean $\bar{x} = -10$ and standard deviation $s = 4$, and assuming that the distribution is approximately normal (symmetric & bell-shaped), find the percentage of the population we expect to have these measurements:

(a) between -14 and -10 ?

(b) below -18 ?

(c) above -22 ?

(d) between -18 and -2 ?

2 (2 points). Given a sample with mean $\bar{x} = -10$ and standard deviation $s = 4$, and **without assuming anything about the shape of the distribution**, describe the percentage of the population we expect to have these measurements:

(a) within 3.5 standard deviations away from the mean?

(b) between -18 and -2 ?