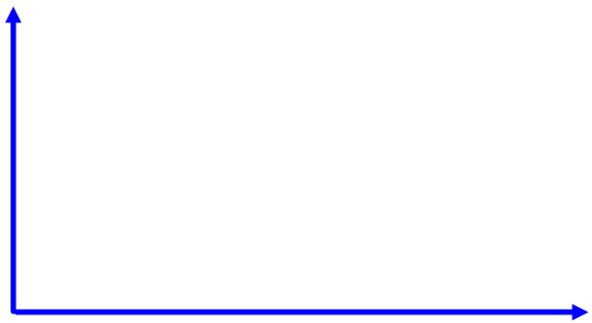
Normal distribution



Standard normal distribution

A *z*-score is

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The variance, σ^2, can be calculated as follows:

Standard deviation, σ, can be calculated as follows:

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What are the mean, variance, and standard deviation of these values? Round to the nearest tenth.

1, 8, 13, 11, 9, 5

a. mean = 7.8
variance = 15.5;
standard deviation = 3.9

b. mean = 7.8
variance = 2;
standard deviation = 4.3

c. mean = 8.5
variance = 15.5;
standard deviation = 4.3

d. mean = 8.5
variance = 2;
standard deviation = 3.9

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What are the mean, variance, and standard deviation of these values? Round to the nearest tenth.

x	$x-\bar{x}$	$(x-\bar{x})^2$
40	2.6	6.8
25	–12.4	153.8
50	12.6	158.8
39	1.6	2.6
33	–4.4	19.4

a. mean = 37.4
variance = 68.2
standard deviation = 4656.7

b. mean = 37.4
variance = 68.2
standard deviation = 8.3

c. mean = 160.6
variance = 68.2
standard deviation = 8.3

d. mean = 37.4
variance = 325.7
standard deviation = 8.3

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Use a calculator to find the mean and standard deviation of the data. Round to the nearest tenth.

20, 19, 16, 9, 20, 16, 10

a. mean = 15.7;
standard deviation = 17.9

b. mean = 16;
standard deviation = 4.2

c. mean = 15.7;
standard deviation = 4.2

d. mean = 16;
standard deviation = 17.9

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Use a calculator to find the mean and standard deviation of the data. Round to the nearest tenth.

23, 9, 22, 15, 10, 19, 15

a. mean = 16.1;
standard deviation = 5.1

b. mean = 15;
standard deviation = 5.1

c. mean = 15;
standard deviation = 25.8

d. mean = 16.1;
standard deviation = 25.8