

# Standard Deviation Puzzles - 4

Let  $X$  and  $Y$  be two independent "normal" random deviates with mean and standard deviation 10 and 3, and 20 and 4, respectively. Let  $\sigma$  be the value of the standard deviation of the distribution obtained by computing the difference of the two distributions ( $X - Y$ ).

In the answer box, enter the value of  $\sigma$ , correct to one place of decimal.

## Submission Modes and Output Format

You may either solve the problem on pen-and-paper and submit the final answer in the text box, or you may submit an R or Python program to accomplish the above task. Your output should be a floating point/decimal number, correct to 1 place of decimal.

1. In the text box below, enter a floating point/decimal number, correct to 1 place of decimal.
2. Alternatively, you may submit an **R** program, which uses the above parameters (hard-coded) and computes the answer.

Your answer should resemble something like:

9.1

(This is **NOT** the answer, just a demonstration of what the answering format should resemble).