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A frozen food company uses machines to pack sprouts into bags.

A sample of six bags is taken from Machine A and the number of sprouts in each bag is counted.

The results are shown below.

23      19      21      20      19      24

(a) Calculate the mean and standard deviation of this sample. 3

(b) Another sample of six bags is taken from Machine B.

This sample has a mean of 19 and a standard deviation of 2.3.

Write down two valid comparisons between the samples. 2

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Answers:

(a) Mean = 21

Standard deviation = 2.1

(b) Machine A, on average, packs more sprouts into a bag.

The number of sprouts packed in a bag by Machine A is more consistent.

*(or equivalent statements)*