



Standard Deviation

SCORE

___ / 20

Chapter: Statistics • Level ★★★ • Time: 30 min

Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

- ✓ Compute the standard deviation as the square root of the variance. ✓ Interpret the spread it describes.
- ✓ Note that it shares the data's units. ✓ Compare precision using standard deviation.



Section A • Concept Check

• BEGINNER

$4 \times 1 = 4$

- The standard deviation if the variance is 25:
☐ A. 5 ☐ B. 25 ☐ C. 625 ☐ D. 12.5
- The standard deviation if the variance is 49:
☐ A. 7 ☐ B. 49 ☐ C. 24.5 ☐ D. 2401
- The standard deviation if the variance is 2:
☐ A. about 1.41 ☐ B. 4 ☐ C. 1 ☐ D. 2
- Machine A has SD 0.2 mm, Machine B has SD 0.05 mm. More precise:
☐ A. Machine A ☐ B. Machine B ☐ C. equal
☐ D. cannot tell



Section B • Problem Solving

• INTERMEDIATE

$2 + 3 \times 3 = 11$

- Standard deviation = _____ of the variance.
- If the variance is 25, the standard deviation is _____.
- Find the standard deviation of a dataset with variance 25.

- Find the standard deviation of a dataset with variance 49.

- Find the standard deviation of a dataset with variance 2.



Section C • Challenge

• CHALLENGE

5

- Machine A has SD 0.2 mm, Machine B has SD 0.05 mm. Which is more precise?

Reflection — the most useful thing I learned: _____

A ___/4 B ___/11 C ___/5 Total ___/20

Teacher's Signature _____

Parent's Signature _____

✂ ANSWER KEY — FOLD OR CUT BEFORE HANDING OUT

1-A 2-A 3-A 4-B | 5 square root 6 5 7 = 5 8 = 7 9 = About 1.41 | 10 = Machine B