



Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

- ✓ Interpret the correlation coefficient r .
- ✓ Distinguish strong from weak correlation.
- ✓ Know that r ranges from -1 to 1 .
- ✓ Understand that correlation is not causation.



Section A · Concept Check

BEGINNER

$4 \times 1 = 4$

- 1 $r = 0.99$ is:
 - ☐ A. very strong positive
 - ☐ B. weak
 - ☐ C. negative
 - ☐ D. no correlation
- 2 $r = -0.99$ is:
 - ☐ A. very strong negative
 - ☐ B. weak
 - ☐ C. positive
 - ☐ D. none
- 3 $r = 0.3$ is:
 - ☐ A. weak to moderate
 - ☐ B. very strong
 - ☐ C. perfect
 - ☐ D. negative
- 4 Ice-cream sales and drownings both rise with heat. Does one cause the other?
 - ☐ A. Yes
 - ☐ B. No
 - ☐ C. Only sometimes
 - ☐ D. Cannot tell



Section B · Problem Solving

INTERMEDIATE

$2 + 3 \times 3 = 11$

- 5 Correlation r ranges from -1 to _____.
- 6 $r = +1$ is a perfect _____ linear relationship.
- 7 Is $r = 0.99$ a strong or weak correlation?

- 8 Is $r = -0.99$ a strong or weak correlation?

- 9 Is $r = 0.3$ a strong or weak correlation?



Section C · Challenge

CHALLENGE

5

- 10 Ice-cream sales and drownings both correlate with hot weather. Does one cause the other?

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 1 6 positive 7 = Very strong (positive) 8 = Very strong (negative)
9 = Weak to moderate | 10 = No, both are linked to a third factor