BitWith Bite

SQL WORKSHEET

CTEs & WITH Clause

Chapter: SQL · Level ★☆☆ · Time: 30 min

SCORE ___ / 20

Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

✓ Write WITH … AS (…) ✓ Chain multiple CTEs ✓ Improve readability ✓ Reference a CTE like a table

Section A · Concept Check • BEGINNER 4 × 1 = 4

1 A CTE starts with:

◯ A. WITH ◯ B. CTE ◯ C. TEMP ◯ D. AS

2 A CTE behaves like a:

◯ A. named temporary result/table ◯ B. index ◯ C. trigger ◯ D. file

3 Multiple CTEs are separated by:

◯ A. commas ◯ B. semicolons ◯ C. AND ◯ D. pipes

4 Main benefit of CTEs:

◯ A. readability of complex queries ◯ B. smaller database ◯ C. faster typing only ◯ D. colors

Section B · Problem Solving • INTERMEDIATE 2 + 3×3 = 11

5 WITH totals _____ (SELECT …) names the block.

6 After defining, you SELECT … FROM _____.

7 Rewrite: average of per-user order totals, using a CTE.

_____

8 Chain two CTEs (sales, top) - sketch the shape.

_____

9 CTE vs subquery in one line?

_____

Section C · Challenge • CHALLENGE 5

10 Can you JOIN a CTE?

_____

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-A | 5 AS 6 the CTE name 7 = WITH t AS (SELECT user_id, SUM(total) s FROM orders GROUP BY user_id) SELECT AVG(s) FROM t; 8 = WITH sales AS (...), top AS (SELECT ... FROM

sales) SELECT * FROM top; 9 = Same idea, but the CTE is named up front and easier to read/reuse |
10 = Yes - treat it exactly like a table