

# Week 9 — Multiple/logistic regression: Wednesday exit ticket

Week 9 – Wednesday exit ticket

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Instructions

Work through each item below. Write your final response in the space provided. Show enough work that another reader can follow your reasoning.

1. In the PREVEND study (Dutch adults; cognitive function scored on the RFFT, higher = better; **observational** data), researchers modelled RFFT from statin use, adding predictors in stages. The coefficient on **statin use** was:

Model	Statin coefficient	Model $R^2$
Statin only (unadjusted)	-10.05	0.0239
+ Age	+0.85	0.2852
+ Age, education, prior CVD	+4.69	0.4355

- (a) Interpret the **unadjusted** coefficient  $-10.05$  in one sentence (what it seems to say about statins and cognition).
- (b) What happens to the statin coefficient once **age** is held constant?
- (c) In two sentences, explain **why** the coefficient changes so much. (Statin users tend to be older; older adults tend to score lower. Name the Week 6 idea.)
- (d) Does the adjusted model **prove** statins are safe for cognition? One sentence, with the reason.