

**In-Video Quiz Questions for
Unit 7: Part 2 – (1) Inference for MLR**

(01:56) – slide 3, after “We're actually going to go through in detail what just about every single value we're seeing on the regression output means throughout the rest of the slides in this video.”

1. What is the correct interpretation of the slope for mom_work?

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	19.5924	9.2191	2.13	0.0341
mom_hs:yes	5.0948	2.3145	2.20	0.0282
mom_iq	0.5615	0.0606	9.26	0.0000
mom_work:yes	2.5372	2.3507	1.08	0.2810
mom_age	0.2180	0.3307	0.66	0.5101

All else being equal, children whose moms worked during the first three years of their lives are estimated to score _____ than those whose moms did not work.

- (a) 2.54 points lower
- (b) 2.54 points higher

(11:34) – slide 11, after “children whose moms worked during the first three years of their lives scored 2.09 points lower to 7.17 points higher than those whose moms did not work.”

2. Given all variables in the model, which ones are significant predictors of kid's cognitive test score?

	Estimate	Std. Error	t value	Pr(> t)
(Intercept)	19.5924	9.2191	2.13	0.0341
mom_hs:yes	5.0948	2.3145	2.20	0.0282
mom_iq	0.5615	0.0606	9.26	0.0000
mom_work:yes	2.5372	2.3507	1.08	0.2810
mom_age	0.2180	0.3307	0.66	0.5101

- (a) mom_hs
- (b) mom_iq
- (c) mom_work
- (d) mom_work and mom_age
- (e) mom_hs and mom_iq

Answers:

1. b

Explanation: The slope is +2.54, and the reference level is “no”, therefore those who are “yes” (worked during the first three years of the child’s life) are higher by 2.54.

2. e