



## Week 3 Lab



**7/11** points earned (63%)

You haven't passed yet. You need at least 80% to pass.

Review the material and try again! You have 3 attempts every 8 hours.

[Back to Week 3](#)



1 / 1  
points

1.

How many of the 13 variables are categorical?



5



6



7



**Correct**



8



0 / 1  
points

2.

Which of the following best describes the distribution of **weight**?



Left skewed



Right skewed



**This should not be selected**

- ☐ Uniformly distributed
  - ☐ Normally distributed
- 



1 / 1  
points

3.

Which of the following corresponds to the 99% credible interval for the average birth weight of all children born in North Carolina?

- ☐ (7.00 , 7.19)
- ☒ (6.98 , 7.22)



**Correct**

- ☐ (6.94 , 7.26)
  - ☐ (6.94 , 7.27)
- 



1 / 1  
points

4.

Based of Jeffrey's scale for interpretation of a Bayes factor how should we describe the evidence in favor of  $H_1$  from the results above?

- ☐ Not worth a bare mention
- ☒ Positive



**Correct**

- ☐ Strong
  - ☐ Very Strong
-



1 / 1  
points

5.

Which of the following is **false** about the relationship between habit and weight?

- ☐ Median birth weight of babies born to non-smoker mothers is slightly higher than that of babies born to smoker mothers.
- ☐ Range of birth weights of babies born to non-smoker mothers is greater than that of babies born to smoker mothers.
- ☒ Both distributions are extremely right skewed.



**Correct**

- ☐ The IQRs of the distributions are roughly equal.



1 / 1  
points

6.

Based on the credible interval is there evidence that smoking reduces birth weight?

- ☒ Yes



**Correct**

- ☐ No



1 / 1  
points

7.

Based on the Bayes factor calculated above, how strong is evidence against  $H_1$ ?

- ☒ Not worth a bare mention



**Correct**

- ☐ Positive
- ☐ Strong
- ☐ Very Strong
- 



0 / 1  
points

8.

How would the Bayes factor above change if we were to increase the prior probability of  $H_2$ ?



Get bigger



**This should not be selected**



Get smaller



Stay the same

---



0 / 1  
points

9.

How would the Bayes factor above change if we were to change the prior of  $p$  to be  $Beta(75, 925)$ ?



Get bigger



**This should not be selected**



Get smaller



Stay the same

---



1 / 1  
points

10.

These data provide \_\_\_\_\_ evidence \_\_\_\_\_ smoking affecting the chance of low birth weight.

- ☐ weak; for
- ☐ strong; for
- ☒ weak; against



**Correct**

- ☐ strong; againt



0 / 1  
points

11.

These data provide \_\_\_\_\_ evidence \_\_\_\_\_ smoking affecting the chance of premature birth.

- ☐ weak; for
- ☐ strong; for
- ☐ weak; against
- ☒ strong; againt



**This should not be selected**

