

## Week 3 Lab

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**11/11** points  
earned (100%)

Quiz passed!



1 / 1  
points

1.  
How many of the 13 variables are categorical?



5



6



7



**Correct**



8



1 / 1  
points

2.  
Which of the following best describes the distribution of **weight**?



Left skewed



**Correct**



- ☐ Right skewed
  - ☐ 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



1 / 1  
points

8.

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

☐ Get bigger

☐ Get smaller

☒ Stay the same



Correct



1 / 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

☒ Get smaller



Correct





Stay the same

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1 / 1  
points

10.

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



weak; for



strong; for



weak; against



**Correct**



strong; against

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1 / 1  
points

11.

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



weak; for



strong; for



weak; against



**Correct**



strong; against

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