# Empirical problem set BUS456 Fall 2022

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## Question 1

Table 1: Frequency of the claim colour

Green	Red	Yellow
5677	1492	13191

Table 2: Frequency of the insurance type

	auto	life	other	property	travel
2	7563	2305	35	5865	4590

## [1] "Insurance claim with empty insurance type: 17857"
## [2] "Insurance claim with empty insurance type: 18515"

#### Comment on question 1

## Question 2

Table 3: Percentage of claim color

green	yellow	red
0.2787602	0.6479517	0.0732881

Table 4: Percentage of claim color by insurance type

insurancetype	green	yellow	$\overline{\mathrm{red}}$
auto	0.3411345	0.6402221	0.0186434
life	0.2125813	0.7422993	0.0451193
other	0.8857143	0.0857143	0.0285714
property	0.3636829	0.5459506	0.0903666
travel	0.0960784	0.7479303	0.1559913

## Question 3

Table 5: Title

treatmentgroup	0	1	2	3	4
green	0.2816386	0.2753448	0.2696765	0.2925290	0.2751244
yellow	0.6452085	0.6503750	0.6569290	0.6317516	0.6549751
$\operatorname{red}$	0.07315289	0.07428018	0.07339450	0.07571933	0.06990050
auto	0.3733236	0.3684975	0.3679382	0.3702675	0.3776119
life	0.1128993	0.1200097	0.1103332	0.1128218	0.1099502

Table 5: Title

property	0.2845647	0.2884104	0.2940608	0.2895003	0.2838308
travel	0.2275055	0.2213888	0.2262192	0.2253912	0.2268657
other	0.001706901	0.001693685	0.001448576	0.002019182	0.001741294
privatefinanced	0.8351622	0.8400677	0.8401738	0.8200404	0.8504975

Question 4

Question 5

Question 6

Table 6:

	(1)	(2)	
simplification	0.007	0.008	
	(0.007)	(0.007)	
personalization	0.004	0.006	
	(0.007)	(0.007)	
social.norm	0.015**	$0.014^{*}$	
	(0.007)	(0.007)	
combined	0.026***	0.028***	
	(0.007)	(0.007)	
insurancetypelife		0.078***	
		(0.008)	
insurancetypeother		-0.023	
		(0.055)	
nsurancetypeproperty		-0.058***	
		(0.006)	
nsurancetypetravel		0.011*	
		(0.007)	
red		0.004	
		(0.009)	
green		0.052***	
		(0.005)	
privatefinanced1		-0.059***	
		(0.007)	
Constant	0.867***	0.907***	
	(0.005)	(0.009)	
Observations	20,358	20,358	
$\mathbb{R}^2$	0.001	0.020	
Adjusted $R^2$	0.001	0.020	
Residual Std. Error	0.328 (df = 20353)	0.324 (df = 20346)	
F Statistic	$4.090^{***} (df = 4; 20353)$	$38.036^{***} (df = 11; 20346)$	
Note:		*p<0.1; **p<0.05; ***p<0.01	