

# GUIDED PRACTICE-HW for Wednesday night 03/25

## 2012 Multiple Choice Question #30

30. In order to plan its next advertising campaign, the Trendy Motor Vehicle Company is investigating whether the type of vehicle and the color of vehicle are related. Each person in a random sample of size 275 selected from the company's mailing list was classified according to the type (car or truck) and the color of vehicle he or she drove. The data are shown in the table below.

		Vehicle Color				
		Red	Black	White	Tan	Green
Vehicle Type	Car	35	23	41	21	12
	Truck	27	55	39	12	10

Which of the following procedures would be most appropriate to use for investigating whether there is a relationship between vehicle type and color?

- (A) A two-sample  $t$ -test
- (B) A two-sample  $z$ -test
- (C) A matched pairs  $t$ -test
- (D) A chi-square goodness-of-fit test
- (E) A chi-square test of independence