

Name: _____

Variables - I

Directions: Read through each question & find the correct answer in one of the 3 columns below. Shade in the answer box with the color given & then color the picture on the next page accordingly.

*If the color is white, just circle the answer.

#	Question	Answer Choice A	Answer Choice B	Answer Choice C
1	You decide to test whether speeding increases the risk of getting into a car accident. What is your dependent variable?	Cars going the speed limit Color YELLOW	The number of car accidents Color RED	Cars that are speeding Color WHITE
2	Jonathan sets up an experiment to test which brand of dog food his dog likes best. What is his independent variable?	The different brands of dog food Color BROWN	The amount of food his dog eats Color PINK	The color of the dog bowl Color BLUE
3	Lindsay wonders if eating breakfast increases performance in school. She conducts an investigation to find out. Which of the following is her independent variable?	Eating breakfast Color LIGHT GREEN	The performance in school Color BLACK	The time when breakfast is eaten Color GRAY
4	You do an experiment in class to find out whether exercise affects heart rate. What do you use for your control?	The different types of exercises Color YELLOW	Students exercising Color ORANGE	Students not exercising Color PINK
5	Michael plans to conduct an experiment to determine whether ramp height affects how far a marble will roll. To ensure that his data will be valid, what does he need to do?	Use the same size marble for each trial Color PURPLE	Use ramps of varying lengths Color BROWN	Complete no more than 1 or 2 trials Color RED
6	Dianne tested various brands of laundry detergent to see which one removes stains the best. Which of the following variables should Diane have kept constant during her experiment?	The brand of detergent Color BLACK	The number of stains removed Color BROWN	The amount of detergent used Color LIGHT BLUE
7	When performing an experiment, what is being measured?	Independent variable Color PINK	Dependent variable Color YELLOW	Control Color GREEN
8	Bobby conducts an investigation to determine whether eating a mint during a test will increase test scores. Which of the following is Bobby's independent variable?	The test scores Color BLACK	The mint Color ORANGE	The students who do not receive a mint Color PURPLE
9	When you graph the results of an experiment, what goes on the x-axis?	Independent variable Color BLUE	Dependent variable Color YELLOW	Control group Color RED
10	How many variables should you change when you conduct an experiment?	1 Color LIGHT GREEN	2 Color GRAY	3 Color PINK

Variables - 2

Directions: Read through each question & find the correct answer in one of the 3 columns below. Shade in the answer box with the color given & then color the picture on the next page accordingly.

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#	Question	Answer Choice A	Answer Choice B	Answer Choice C
11	A scientist hypothesizes that a new medication can reduce the chances of catching a cold. Which of these would most likely be the dependent variable in a study involving this medication?	The participants who do not receive the medication Color PURPLE	The age of the participants Color GRAY	The number of participants who catch a cold Color YELLOW
12	What is true about an independent variable?	It remains the same throughout an experiment Color ORANGE	It is purposely changed Color RED	It is used for comparison Color WHITE
13	Brett sets up an experiment to test how sound waves are affected by the type of medium through which they travel. Which of the following is the independent variable for Brett's experiment?	The sound waves Color DARK GREEN	The type of medium Color BROWN	The wavelength Color ORANGE
14	You want to compare brands of paper towels to see which one holds the most liquid. Which of the following is the dependent variable?	The brand of paper towels Color PINK	The amount of liquid absorbed Color YELLOW	The pattern on the paper towels Color RED
15	In an investigation to test whether doing homework leads to higher test scores, what is the independent variable?	Doing homework Color PURPLE	The number of students Color LIGHT BLUE	Test scores Color ORANGE
16	You want to find out whether people who graduate from high school make more money than people who drop out. What is the dependent variable?	The amount of school Color PINK	The amount of money a person makes Color DARK BLUE	The age of a person Color BROWN
17	When performing an experiment, what is being tested?	Independent variable Color DARK BLUE	Dependent variable Color WHITE	Control Color YELLOW
18	Carrie wants to test whether people run faster on cement or on grass. Which of the following should she keep constant?	The speed of the runners Color GREEN	The surface Color RED	The distance Color ORANGE
19	What is true about a dependent variable?	It is graphed on the y-axis Color LIGHT BLUE	It is used for comparison Color BLACK	It is purposely changed Color PURPLE
20	In an investigation to determine whether children who play violent video games are more likely to commit crimes as an adult, what is the independent variable?	The number of crimes committed in adulthood Color GRAY	Playing violent video games Color PINK	How many games are played Color YELLOW

