$\qquad$ Class $\qquad$ Date $\qquad$

## Quiz \#2: Identifying Variables

## Identifying Variables

Directions: Read the scenarios below. Complete the IDD using the information provided in the scenario. Record your answers in the boxes on the paper.

## Scenario: Golf

Marcus was shopping at Modell's and he noticed that certain brands of golf balls make claims that theirs are the best. He is curious to see if the brand of golf ball used affects his ability to hit the golf ball further. He hits each brand of golf ball 30 times and has his friend Talha measure how far he is able to hit the ball in meters. The first brand is Titleist, the second brand is Nike, and the third brand is Callaway. Marcus makes sure to use the same golf club each time he hits the ball.

1. What is the Independent Variable?
$2,3,4$. How is the Independent Variable being changed?
$5,6,7$. How many trials of each level of the Independent Variable are being performed?
2. What is the Dependent Variable?
3. What is ONE constant/controlled variable in this experiment?

| Independent Variable: 1 |  |  |  |
| :---: | :--- | :--- | :--- |
| 1 | 2 | 3 | 4 |
| 号 | 5 | 6 | 7 |
| Dependent Variable: 8 |  |  |  |
| Constant/Controlled Variable: 9 |  |  |  |

10. What is the Testable Question for this experiment?
$\qquad$ Class $\qquad$ Date $\qquad$

## Scenario: Hidden Veggies

Mr. Sehn is trying to trick his kids into eating more vegetables. He decides to see if hiding the vegetables in macaroni and cheese would be an effective way to get more vegetables into their diets. Mr. Sehn set up an experiment at lunchtime to see if the type of vegetable put into macaroni and cheese would affect the 6th graders' choices. He made 1 large bowl of regular macaroni and cheese, 1 large bowl of macaroni and cheese with pureed (really well blended) broccoli mixed into it, and 1 large bowl of macaroni and cheese with butternut squash mixed into it. Each bowl was identical in color and size. He gave all 150 6th graders a choice of macaroni and cheese. Sophia helped Mr. Sehn count the number of 6th graders who chose each type of macaroni and cheese.
11. What is the Independent Variable?
$12,13,14$. How is the Independent Variable being changed?
$15,16,17$. How many trials of each level of the Independent Variable are being performed?
18. What is the Dependent Variable?
19. What is ONE constant/controlled variable in this experiment?

| Independent Variable: 11 |  |  |  |
| :---: | :---: | :---: | :---: |
| - | 12 | 13 | 14 |
| 咢 | 15 | 16 | 17 |
| Dependent Variable: 18 |  |  |  |
| Constant/Controlled Variable: 19 |  |  |  |

20. What is the Testable Question for this experiment?

Bonus Question $(+1)$ Look carefully at the experiments described above. Is there something that could have been done differently to make it more "scientific?" Explain your response.

