

TASK 1.2.2: INDEPENDENT AND DEPENDENT STATEMENTS**Solutions**

Read each statement below. Determine the two variables (in words) in each situation and identify each as independent or dependent.

1. How fast the grass grows depends on how much rain we get.
How fast the grass grows – dependent
How much rain we get – independent
2. The number of problems missed on a test determines your grade on the test.
Your grade on the test – dependent
The number of problems missed – independent
3. How long I talk on my cell phone depends on the number of minutes on my calling plan.
How long I talk on my cell phone – dependent
The number of minutes on my calling plan – independent
4. The amount of money I make is a function of the number of hours I work.
The amount of money I make – dependent
The number of hours I work – independent
5. The number of cakes sold in a bake sale determines the amount of money made.
The amount of money made – dependent
The number of cakes sold in a bake sale – independent
6. The winner of the football game depends on which side scored the most points.
Winner of the football game – dependent
Which side scored the most points – independent
7. The amount of memory on a CD determines how many songs I can download to it.
How many songs I can download to it – dependent
The amount of memory on a CD – independent
8. My grade in math class is a function of the number of hours I spend studying.
My grade in math class – dependent
The number of hours I spend studying – independent

Teaching notes

Many of these statements could be turned around and the dependent statement could become the independent. Students may point out that the number of hours they work depends on how much money they need to make. The idea here is to associate independent and dependent quantities with specific statements and words such as depends, determines, and function. As the statements are written, the dependency is established. Allow and encourage students to discuss how changing the dependency would change the meaning and word arrangement of the statements.

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