

Vocabulary Six

Instructions

Take a look at the focus words below. Think about what each word means and how it is used. Then answer the questions after each word.

Remember: You *don't* have to understand every word in the example sentences.

Focus words: suppose, conditions, discuss, volume, equilibrium, property

I. suppose

1. **Suppose** that a student in this year's seminar earned a midterm grade of 88.
2. **Suppose** that you have been hired by Marcia's Dry Cleaning to create a database application to track customers.
3. **Suppose** we want to add an extra operation to the program.
4. For example, **suppose** we wish to find the total mass of three objects as follows:
5. **Suppose** a body that is acted on by exactly two forces is accelerated.
6. **Suppose** you know that a sack contains either red, blue, or objects.

What do you think the word **suppose** means? Use a dictionary to help.

Look at the sentences below. Do you think **suppose** is being used correctly?

Circle your answer.

1. **Suppose** you have a collection of student records.
correct incorrect
2. We want **suppose** a data is incorrect in order to check our equations.
correct incorrect
3. **Suppose** a binomial queue of $N = 2k - 1$ elements is built.
correct incorrect

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4. We wish to **suppose** when this action will take place.

correct incorrect

5. **Suppose** the player serves the ball as before except that the ball leaves the racquet at 5.0' below the horizontal.

correct incorrect

6. For example, **suppose** about what the value of Φ will be.

correct incorrect

Write a sentence that uses the word **suppose**. Use the examples above to guide you.

II. conditions

1. State and explain the **conditions** under which the phase rule is represented by the equation $F = C - P + 2$.
2. The **conditions** of static instability, determinacy, and indeterminacy of plane trusses can be summarized as follows:
3. Each area represents the **conditions** for the stable existence of a single phase.
4. However, under **conditions** of rapid cooling the reaction is prevented.
5. What **conditions** are required for a relation to be in $2NF$?
6. Calculate the power required under these **conditions**.

What do you think the word **conditions** means? Use a dictionary to help.

Look at the sentences below. Do you think **conditions** is being used correctly?

Circle your answer.

1. The **conditions** under which this method works are varied.

correct incorrect

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2. For the **conditions** of Prob. 4.98, derive an equation for the maximum pressure difference in the water tank.
correct incorrect
3. The cutting **conditions** for a turning operation are depicted in Figure 21.5.
correct incorrect
4. What are the **conditions** at this equation will work?
correct incorrect
5. Discuss the **conditions** required about the air pressure in the experiment.
correct incorrect
6. Calculate the bubble-point and dew-point **conditions** of ideal mixtures.
correct incorrect

Write a sentence that uses the word **conditions**. Use the examples above to guide you.

III. discuss

1. **Discuss** the functions of various ingredients used in the compounding of rubber.
2. In this chapter, we **discuss** the problem of sorting an array of elements.
3. In the next two sections of this chapter, we **discuss** coagulation chemistry and soft-chemistry, respectively.
4. Trees in general are very useful abstractions in computer science, so we will **discuss** their use in other, more general applications.
5. Describe and **discuss** the five chief functions of soil.
6. **Discuss** how this affects (a) the velocity, (o) the temperature. (c) the pressure, and ((l) the density of the fluid.

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What do you think the word **discuss** means? Use a dictionary to help.

Look at the sentences below. Do you think **discuss** is being used correctly?

Circle your answer.

1. **Discuss** how the SDWA affected our water supplies

correct

incorrect

2. Look at the diagram on the next page. Describe the results, and **discuss** the importance to your project.

correct

incorrect

3. The data structure **discuss** is known as a splay tree.

correct

incorrect

4. In this section, we will **discuss** a few sample patterns to let you see what patterns look like.

correct

incorrect

5. **Discuss** about the results from your experiment.

correct

incorrect

6. **Discuss** the data and explain why it is significant.

correct

incorrect

Write a sentence that uses the word **discuss**. Use the examples above to guide you.

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IV. volume

1. First, we need to discuss how to find the **volume** of a solid.
2. Two chambers are connected by a valve. One chamber has a **volume** of 10 L and contains N₂ gas at a pressure of 2.0 atm.
3. Thus, the **volume** of an atom is "filled" with wave-particle electrons.
4. Most of the **volume** is empty space.
5. The initial pressure of the gas is P₁, the total **volume** is V.
6. Liquids are usually regarded to be incompressible, meaning that the liquid has a uniform density mass per unit **volume** that cannot be altered by compressive forces.

What do you think the word **volume** means? Use a dictionary to help.

Look at the sentences below. Do you think **volume** is being used correctly?

Circle your answer.

1. Calculate the **volume** of the bottle, and show your work in the space below.

correct incorrect
2. Secondly, we need to discuss how to find the **volume** at a solid in order to complete the solution.

correct incorrect
3. Find the maximum **volume** that the box can have.

correct incorrect
4. The total **volume** of the container is 750 cm³.

correct incorrect
5. By the 17th century scientists realized that plants could live and grow in containers with minimal changes in the **volume** of the soil.

correct incorrect

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6. What is the maximum **volume** about the container?

correct incorrect

Write a sentence that uses the word **volume**. Use the examples above to guide you.

V. equilibrium

1. In the last case, the system of masses is said to be in **equilibrium**.
2. Let's consider some examples: sitting at rest in a room and a person standing stationary in **equilibrium**.
3. Besides, we present the methods for calculating average shear in the beam satisfying equations of **equilibrium**.
4. The two forces are balanced and cancel each other, so they are said to be in **equilibrium**.
5. If the assumed stress satisfies the **equilibrium** equations and stress compatibility conditions, then the stress is the exact solution.
6. The melting of the solution tends to lower the **equilibrium** temperature of the ice-water solution to the melting point of the solution

What do you think the word **equilibrium** means? Use a dictionary to help.

In examples 1-4, what part of speech is **equilibrium**? What part of speech is **equilibrium** in examples 5 and 6?

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Look at the sentences below. Do you think **equilibrium** is being used correctly?

Circle your answer.

1. Write the **equilibrium** equations below and show your calculations.

correct incorrect

2. Calculate the **equilibrium** concentration of a compound when it is in with its precipitate.

correct incorrect

3. In this system, the forces are on **equilibrium** for a short time only.

correct incorrect

4. Similarly at point A, three phases in **equilibrium** are monoclinic, vapor and liquid sulfur.

correct incorrect

5. The diagram shows the methods for calculating average shear in the beam satisfying equations with **equilibrium**.

correct incorrect

6. If a body is in **equilibrium**, the total external forces and total moment in every part of the body are zero.

correct incorrect

Write two sentences (one sentence for each part of speech shown in the examples) that uses the word **equilibrium**. Use the examples above to guide you.

1. _____

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2. _____

VI. property

1. Suppose a connected multigraph has the **property** that exactly four of its vertices have odd degree.
2. The benefits become more apparent when using the **property** in conjunction with operators.
3. Unlike the mass, which is an intrinsic **property** of the body, the weight of a body depends on its location relative to the center of the Earth.
4. This last equation came from a physical **property** of one of the elements of the system.
5. The rate of deformation of the fluid is related to the applied shear stress by viscosity, which is a **property** of the fluid.
6. A directed graph with this **property** is called strongly connected.
7. Fluid flows with this **property** are said to be in a steady state.

What do you think the word **property** means? Use a dictionary to help.

Look at the sentences below. Do you think **property** is being used correctly?

Circle your answer.

1. Electrical flows with this **property** are said to be in a steady state.

correct incorrect

2. The strength of the material is an important **property** on the design.

correct incorrect

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3. It is the **property**, not the material itself that the designer wants.

correct incorrect

4. The Unrestricted **property** is the only one that is common to all permission classes.

correct incorrect

5. Consider a graph which has the **property** in exactly three of its vertices have even degree.

correct incorrect

6. There is a **property** of things that happen naturally in the world around us that is strange beyond belief.

correct incorrect

Write a sentence that uses the word **property**. Use the examples above to guide you.

VII. Choose **three** of the focus words and use them in a short paragraph.

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VIII. Look at the example sentences. What words come before and after each of the focus words? Put each word in a suitable category.

before the focus word	suppose	conditions	discuss	volume	equilibrium	property
noun						
verb						
preposition						
article						the
other word types						

after the focus word	suppose	conditions	discuss	volume	equilibrium	property
noun						
verb						
preposition						
other word types						that

Are there any patterns that you notice? Click [here](#) to see more examples of the focus words in use.

What does the pattern tell you about how the focus word is used?

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IX. Do the focus words have any other parts of speech? Complete the table. Not all focus words have all parts of speech that are shown in the table.

	suppose	conditions	discuss	volume	equilibrium	property
noun	supposition					
verb						
adjective						
adverb						