

Vocabulary Five

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: corresponding, back and forth, component, common, cause, associated

I. corresponding

1. Determine, if possible, the **corresponding** stream function and velocity potential.
2. These are similar to the **corresponding** sign conventions for the linear quantities.
3. This condition is known as resonance and the **corresponding** frequency is called the resonant angular frequency.
4. There are two general categories of cutting fluids, **corresponding** to the two main problems they are designed to address: coolants, and lubricants.
5. The final results of your calculations should be given with a number of significant figures **corresponding** to the accuracy of measurements and calculations.
6. The temperature deduced for the system approaches a limit **corresponding** to a pressure of zero. Other gases approach the same limit.

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

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

Circle your answer.

1. The temperature reaches a limit **corresponding** to a pressure of 1.2 atmospheres.

correct

incorrect

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2. What is the value of ψ **corresponding** for the value of y in the graph?

correct

incorrect

3. The **corresponding** temperature will be too great for the ceramic, and it will fracture.

correct

incorrect

4. The dashed line shows the path in the xy plane to **corresponding** at the translational motion of the axis of rotation.

correct

incorrect

5. These tables and graphs are similar to **corresponding** tables in C^{++} .

correct

incorrect

6. Four different patterns are shown, **corresponding** to different wavelengths and frequencies.

correct

incorrect

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

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II. back and forth

1. The pendulum will swing **back and forth**.
2. If we continue to move the end of the string **back and forth** (Fig. 18-1a), we produce a train of waves traveling along the string.
3. For example, when a spring under tension is set oscillating **back and forth** at one end, a longitudinal wave travels along the spring.
4. Most people will move their eyes **back and forth** to follow the motion of the ball.
5. Central Australia is generally dry because the high pressure system moves **back and forth** over the continent, blocking any rain-bearing systems.
6. We can also have electromagnetic oscillations such as electrons surging **back and forth** in circuits that are responsible for transmitting and receiving radio or TV signals.

What do you think the word **back and forth** means? Use a dictionary to help.

Look at the sentences below. Do you think **back and forth** is being used correctly?

Circle your answer.

1. Electromagnetic oscillations are surging **back and forth** for circuits that send and receive radio signals.

correct incorrect
2. The motion makes the wave move **back and forth** in the water tank faster and faster.

correct incorrect
3. Answer the questions **back and forth** gaining a better understanding of the topic.

correct incorrect
4. Water sloshes **back and forth** in a tank as shown in Fig. 7.13.

correct incorrect

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5. If, however, the motion of the particles in a mechanical wave is **back and forth** along the direction of propagation, we have a longitudinal wave.

correct

incorrect

6. The ball bounces **back and forth** in the air when the child drops it.

correct

incorrect

Write a sentence that uses the word **back and forth**. Use the examples above to guide you.

III. component

1. The hydrosphere is the water **component** of the Earth.
2. Nitrogen is a key **component** of nucleic acids, as well as the amino acids of proteins in all organisms.
3. If the **component** is an important one, you should arrange to test it yourself.
4. Figure 27.1 summarizes the methodology for designing a **component** which must carry load.
5. The larger **component** has the shape of a dish sink, and the second component is a flat cover.
6. This **component** is an important part of the system.
7. An important design consideration is how a particular **component** is to be assembled into the final product.

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

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

Circle your answer.

1. This **component** is part of many systems.

correct

incorrect

2. **Component** changes the shape of other objects when a force is applied.

correct

incorrect

3. Find the **component** that is needed to complete the system.

correct

incorrect

4. Environmental biology monitoring is an important **component** of reserve management.

correct

incorrect

5. By integrating the Φ **component** about the acceleration, determine the minimum height reached by the center of mass acceleration.

correct

incorrect

6. Some changes are so slow that they become a problem to the engineer only when a **component** is held at a high temperature for some years.

correct

incorrect

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

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IV. common

1. Calcium and magnesium dissolved in water are the two most **common** minerals that make water "hard."
2. Heat treatment is the most **common** example.
3. Waves are a **common** and essential part of our environment.
4. The n-electrons form a **common** n-electron system along the whole polymer chain.
5. The **common** examples of primary fuels are wood, coal, petroleum, natural gas, animal dung, etc.
6. This kind of input is **common** for external sorts and makes replacement selection extremely valuable.
7. As we indicated in Section 13-7, in **common** usage, heat is often confused with temperature or internal energy.

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

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

Circle your answer.

1. It is **common** practice to use an intuitive approach in solving problems using the moment area method.

correct incorrect
2. The one element that they all have in **common** is that they all can be computer-based.

correct incorrect
3. This kind of **common** output is external sorts and makes replacement selection extremely valuable.

correct incorrect

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4. You need to **common** examine all the parts of the system to determine the answer.

correct

incorrect

5. Nose bleeding is a **common** experience at high altitudes since the difference between the blood pressure and the atmospheric pressure is larger.

correct

incorrect

6. There is a need for virtual reality tools to have a **common** language to describe 3D scenes.

correct

incorrect

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

V. cause

1. Here, a change in temperature or pressure may **cause** the phases to abruptly change from one to the other.
2. Determine the critical value of d that will **cause** the gate to rotate.
3. An alcohol fire is invisible and can **cause** great harm before it is noticed.
4. Coal in particular may be restricted world over due to environmental considerations as fossil fuels have been found to **cause** greenhouse effect and acid rain.
5. Damage to the average ear occurs at 90 dB or greater. Find the decibel level of each of the following sounds and state whether it will **cause** ear damage.
6. If the Mach number is small, then the inertial force associated does not **cause** a significant density change.

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

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

Circle your answer.

1. This small change can **cause** big problems in the system.

correct

incorrect

2. Engineers often have made **cause** for this equation because it is very useful in their work.

correct

incorrect

3. This change in direction will **cause** the object to experience an increase in shear stress.

correct

incorrect

4. The programmer will use this to **cause** help for the user when the user has a problem.

correct

incorrect

5. **Cause** will examine the results of the solution before beginning the project.

correct

incorrect

6. Bacteria, high temperature and high pressure **cause** the slow conversion of wood into coal.

correct

incorrect

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

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VI. associated

1. Most human impacts, as well as our fish resources, are **associated** with the high biodiversity of coastal regions.
2. What are the units **associated** with each type of heat capacity?
3. The second approach is to utilize sophisticated air pollution control equipment. A second problem is **associated** with the ash from the combustion process.
4. Kinetic energy is but one of many forms of energy that can be **associated** with a body.
5. Describe and discuss the problems that are **associated** with groundwater pollution.
6. Discuss the problems **associated** with air pollution migration.

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

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

Circle your answer.

1. Determine the **associated** with air pollution migration.
correct incorrect
2. It is one of many forms of energy that can be **associated** with an object.
correct incorrect
3. **Associated** on this work is the idea of energy conservation.
correct incorrect
4. What are the values that are **associated** with these results?
correct incorrect
5. Other problems **associated** for quick water runoff are erosion and flooding.
correct incorrect

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6. This parasite is often **associated** with stomach pain and diarrhea in children.

correct

incorrect

Write a sentence that uses the word **associated**. 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	corresponding	back and forth	component	common	cause	associated
noun						
verb						are
preposition						
article						
other word types						

after the focus word	corresponding	back and forth	component	common	cause	associated
noun						
verb						
preposition						with
other word types						

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.

	corresponding	back and forth	component	common	cause	associated
noun						
verb	correspond					
adjective						
adverb						