

**Experimental Design**

- \_\_\_\_\_ 1. Steve brought a new pet hamster home and noticed that Spot, the hamster, wasn't eating enough of its Chewy Hamster Chow. Steve decided to give the hamster a different vegetable each day and record the results of how much Spot ate daily. After 11 days, Steve concluded that Spot likes beans best.

Which is an example of the independent variable?

- |                      |                      |
|----------------------|----------------------|
| a. type of vegetable | c. how much Spot ate |
| b. Spot              | d. price of beans    |

- \_\_\_\_\_ 2. A study was done to test the effects of coffee on sleep. The hypothesis of the experiment was that people who drank coffee when they woke up would stay awake longer. One group was given coffee. One group was not given coffee. The time that subjects stayed awake was timed.

Which of the following is an example of control group?

- |                         |                            |
|-------------------------|----------------------------|
| a. subjects with coffee | c. drank coffee or not     |
| b. time awake           | d. subjects without coffee |

- \_\_\_\_\_ 3. A new chemical is being researched for its ability to improve fruit production in trees. Some trees are given water only and other trees are given water with the chemical added. After a season of growing, the fruit production is recorded for both groups.

Which is an example of the control group?

- a. trees that were given the chemical
- b. the chemical
- c. the water
- d. trees that were given water

- \_\_\_\_\_ 4. Veronica brought a new pet chipmunk home and noticed that Tiny, the chipmunk, wasn't eating enough of its Chewy Chipmunk Chow. Veronica decided to give the chipmunk a different vegetable each day and record the results of how much Tiny ate daily. After 8 days, Veronica concluded that Tiny likes peas best.

Which is an example of the experimental group?

- |                      |                      |
|----------------------|----------------------|
| a. type of vegetable | c. how much Tiny ate |
| b. Tiny              | d. price of peas     |

- \_\_\_\_\_ 5. A study was done to test the effects of coffee on sleep. The hypothesis of the experiment was that people who drank coffee when they woke up would stay awake longer. One group was given coffee. One group was not given coffee. The time that subjects stayed awake was timed.

Which of the following is an example of experimental group?

- |                         |                            |
|-------------------------|----------------------------|
| a. drank coffee or not  | c. time awake              |
| b. subjects with coffee | d. subjects without coffee |

- \_\_\_\_\_ 6. Steve brought a new pet gerbil home and noticed that Spot, the gerbil, wasn't eating enough of its Chewy Gerbil Chow. Steve decided to give the gerbil a different vegetable each day and record the results of how much the Spot ate daily. After 7 days, Steve concluded that Spot likes onions best.

Which is an example of the independent variable?

- |                      |                      |
|----------------------|----------------------|
| a. type of vegetable | c. price of onions   |
| b. Spot              | d. how much Spot ate |

**Experimental Design**  
**Answer Section**

1. ANS: A
2. ANS: D
3. ANS: D
4. ANS: B
5. ANS: B
6. ANS: A

