A scientist wanted to investigate whether or not an increase in water temperature would increase the breathing rate of goldfish. He set up two aquariums with 10 goldfish in each. One aquarium was set at room temperature (75 degrees F) and the other at 85 degrees F. He fed each group 10 grams of food per day. He counted the number of times a fish’s gills moved in one minute and recorded the data. He did the same for each of the 10 fish in each tank.

1. What is the independent variable?

A. water temperature

B. amount of food

C. number of gill movements

D. size of the aquarium

2. The dependent variable is

A. water temperature

B. type of fish

C. size of the aquarium

D. number of gill movements

3. Which of the following is a constant?

A. breathing rate

B. amount of food

C. water temperature

D. none of the above

4. The control in this experiment was the

A. fish at 75 degrees F

B. fish at 85 degrees F

C. 10 grams of food per day

D. number of times the gills move per minute