

Activity 02-08

Identifying Variables Worksheet

For the following experiments, define the (IV) independent variable, (DV) dependent variable, (C) constants (controlled variables), and (CG) control group.

1) Different rose bushes were grown in a greenhouse for two months. The number of flowers on each bush was counted every day.

IV _____

DV _____

C _____

2) Three sunflower plants were watered with salt water. Each plant received a different concentration of salt solutions. A fourth plant received pure water. The heights were measured daily for a two week period.

IV _____

DV _____

CG _____

3) Three redwood trees were kept at different humidity levels inside a greenhouse for 12 weeks. One tree was left outside in normal conditions. The heights of the trees were measured once each week.

IV _____

DV _____

C _____

CG _____

4) Pea plant clones planted in a garden were watered with different amounts for a three-week period. The first pea plant received 400 mL a day. The second pea plant received 200 mL each day. The third pea plant received 100 mL each day. The fourth pea plant did not receive any extra water beyond what was received from the rain on the garden. The heights of the pea plants were recorded daily.

IV _____

DV _____

C _____

CG _____

5) One tank of goldfish was fed the normal amount of food once a day. A second tank was fed twice a day. A third tank is fed four times a day during a six week study. The mass of each fish was recorded daily.

IV _____
DV _____
C _____
CG _____

6) In cleaning the bathroom, you notice that the shower is covered in a strange green slime. You tried to get rid of this slime by spraying it with lemon juice. You sprayed half of the shower with lemon juice and the other half of the shower with hot water. After three days of spraying equal amounts morning, noon, and night, there was no change in the appearance of the green slime on either side of the shower.

IV _____
DV _____
C _____
CG _____

7) While cleaning your bedroom you noticed that the floor was not visible because it was covered with clothes. You tried to get rid of the clothes by throwing them into the air. 1/3 of the clothes were thrown into the closet, 1/3 of the clothes were thrown straight up in the air. In the last 1/3 of the room the clothes were left on the floor. After 30 minutes of “cleaning” the floor of the room was visible.

IV _____
DV _____
CG _____

8) You wanted to test which size of soccer ball is easiest to juggle with your feet. You tested a size 3, size 4, and size 5 ball. You counted the seconds the ball stayed in the air for each of the trials while using both feet, knees, and head to juggle the ball.

IV _____
DV _____
C _____