

algebraforall

elizabeth warren PhD

Sample Activity Green

Puzzle Graphs

Interpreting points on a scatter plot

AIM

Students will interpret points on a scatter plot and justify their choices.

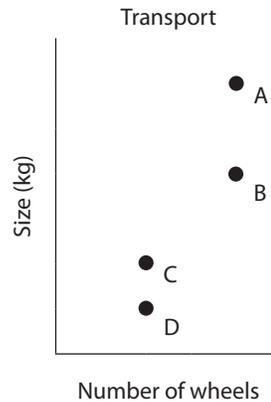
MATERIALS

- 1 copy of the blackline master (opposite) for each pair of students

REFLECTION

Refer to the blackline master and ask, *How did you figure out what each point represents? Did you focus on a particular point first? Did you focus on a particular animal first? Why did you choose that animal? Was it the fastest (heaviest) animal?*

- 1 On the board, draw the graph shown below and simple pictures of a truck, a car, a motorcycle, and a bicycle.



Ask, *What does this graph compare?* (4 different forms of transport.) *What do the points on the graph represent?* (Each is a different vehicle.)

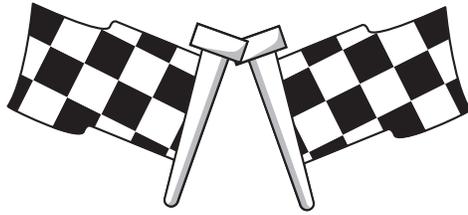
- 2 Discuss how the points that are at the greatest distance from each axis have the greatest values. Ask, *Which points have the same number of wheels?* (Points A and B, and Points C and D.) *Which points have 2 wheels and which points have 4 wheels?* (Points C and D = 2 wheels, and Points A and B = 4 wheels.) *How do you know? Which vehicle is represented by Point A?* (Truck.) *Which point represents the car?* (Point B.) *Which represents the motorcycle?* (Point C.) *Which vehicle is represented by Point D?* (Bicycle.) *How did you decide which vehicle each point represents?* As the students justify their decisions, list the reasons on the board. They may say, “The truck weighs the most, so it must be Point A. The motorcycle and bicycle both have 2 wheels, and the bicycle is lighter than the motorcycle so it must be Point D. The motorcycle must be Point C. The car has 4 wheels and is lighter than the truck, so it must be Point B”.
- 3 Read the blackline master with the class. Ask the students to work in pairs to complete the page. Call on pairs of volunteers to share and justify their answers.

Puzzle Graphs

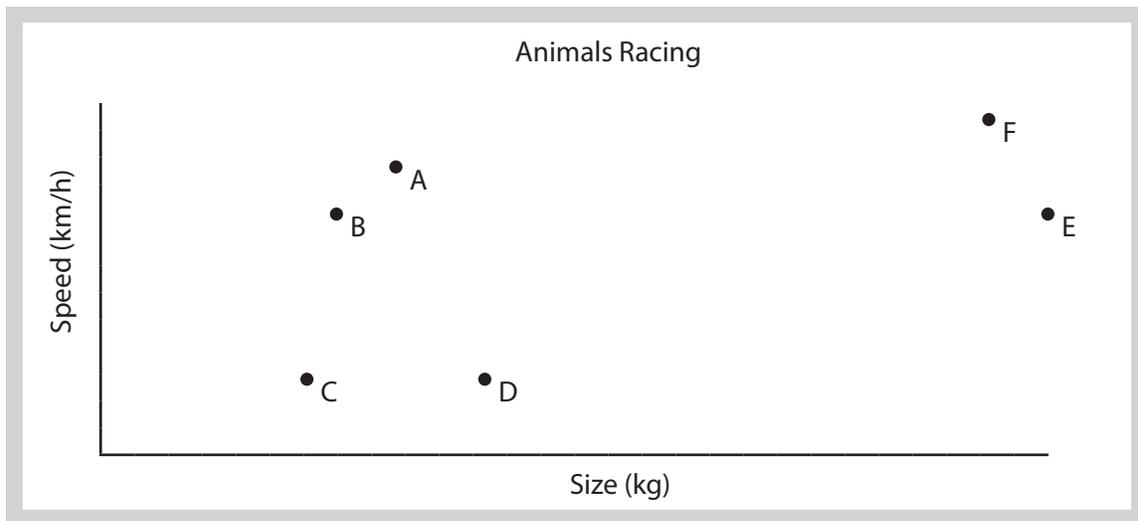
Name _____

This table shows the average speed of 6 animals.

Each animal in the table is represented on the scatter plot below.



Animal	Average speed
Cat	50 km/h
Chicken	17 km/h
Grizzly bear	50 km/h
Hunting dog	62 km/h
Lion	72 km/h
Pig	17 km/h



1. List the animals in order from A to F.

A. _____

B. _____

C. _____

D. _____

E. _____

F. _____

2. Explain your list. _____
