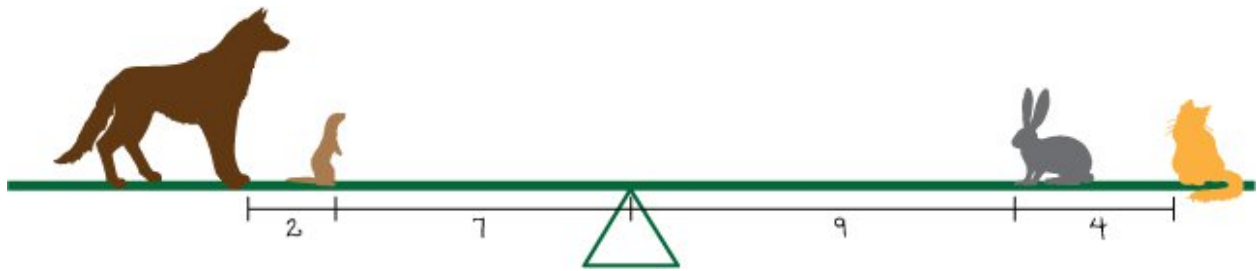


# Teeter Troop

## Problem

A seesaw can balance with four weights on it. The product of each *weight* and its *distance from the fulcrum* contributes to the balancing. If the sum of those products on one side equals the sum of the products on the other side, balance is achieved.

Four animals are balancing on a seesaw as shown below. All of the distances are measured in feet.



Use the diagram and the following clues to determine the weight of each animal.

1. The sum of their four weights is 40 pounds.
2. The rabbit weighs 2 pounds more than the ferret.
3. The cat weighs 8 pounds less than the dog.

## Extra

**Extra:** Both sides of the seesaw are 14 feet long. Because the animals don't understand decimals or fractions, they always choose to sit at positions that are whole number distances from the fulcrum.

If the ferret and dog exchange positions on their side, what positions do the rabbit and cat need to move to on their side in order to keep the seesaw balanced?