Read the passage and answer questions 10–15.

Dances with Animals
by Ellen R. Braaf

A honey bee returns to the hive. Sticky pollen clings to her body. Nectar fills her honey sac. She's found apple blossoms in a distant orchard. How does she tell other worker bees about this new food source? She dances!

Unlike humans, animals don't have words to help them communicate. They can't say "Hey! Look what I found," or "Keep away! This is my spot," or "Want to go steady?" Yet, animals communicate all the time. They send out signals—messages others receive and understand using their senses of smell, taste, touch, hearing, and sight.

Animals with good vision "talk" to each other with their bodies. They use patterns of movements to share information, to defend themselves or their territories, and to attract mates. Nature designs their steps, and they dance as if their lives depended on it. Often, they do.

Language of Bees

Most communication takes place among members of the same species. In dark beehives, honeycombed walls become waxy dance floors. Like a rock star swarmed by adoring fans, a bee returning from the apple orchard begins her dance. Other workers follow her as she moves forward in a straight line. She vibrates her wings and wags her body side to side very quickly—13 to 15 times a second. Then she turns to one side, circles back, and begins the waggle run again. When she finishes, she circles around—this time in the opposite direction—and repeats her steps. The dance may go on for hours.

As she traces a figure 8 on the dance floor, the follower bees touch her with their antennae. They sense the odors of apple blossom nectar and pollen clinging to her body. These workers also detect the scent she used to mark the distant flowers. A flight plan is coded in her movements. The length of the waggle run tells workers how far the flowers are from the hive. Its angle tells them how to get there. Because bees steer by the sun, the dancer links her directions to its position in the sky.

However, the position of the sun in the sky keeps changing. If the waggle dance lasts for hours, how do bees leaving the hive long after the dance has begun find their targets? Amazingly, they do. The waggling bee adjusts her dance to account for the sun's movement.

Keep Away!

"This is my spot!" Not all animals cooperate the way honey bees do. Most compete for food, territory, and mates. Fights take time and energy. Rivals risk injury and death, weakening the group as a whole. So some animals dance instead, using movements to make themselves look larger, stronger, and quicker than their competition. "Don't mess with me," they say.

Red Fish, Blue Fish

Most fish settle conflicts over territory without fighting. But Siamese fighting fish, also known as bettas, are little fish with a big mean streak. Brightly colored bettas in pet stores have been specially bred for their beautiful veil-like fins. In the wild, they live in rice paddies in Southeast Asia.

If threatened, male Siamese fighting fish switch back and forth between face-to-face and side-to-side positions. Facing each other, they flare out flaps of skin on their necks and extend their fins. This makes them seem twice their size. Side-to-side, they flicker their fins and beat the water with their tails. Tail beating gets faster and faster until one male backs down. The loser lowers his fins and puts his tail down. His bright red, blue, or purple body color fades to a dull hue. Defeated, he swims away.

Whether it is to communicate where to find something or to tell someone to "steer clear," animal dances can tell us a lot!

Item	Grade	Claim	Target	DOK	Standard(s)	Percent Receiving 1
#15	4	1	12	3	RI.3	52

Evidence Statement
The student will analyze the interaction between elements within a text.

What does the information in the section "Keep Away!" show about the author's point of view?

Ⓐ It shows that the author thinks that bees are the best animal.

Ⓑ It shows that the author thinks that all animal dances are frightening.

Ⓒ It shows that the author thinks that animal dances weaken animal groups.

Ⓓ It shows that the author thinks that animal dances are better than animal fights.

Key: D

Rubric: (1 point) The student selects the correct option.