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Suppose a fire burns through the beetles' habitat, leaving the trees, soil, and some rocks charred black for several years. Most of the beetles and their predators survive the fire and continue to live in the habitat.

- a. Identify which beetle phenotype or phenotypes will most likely be favored in the habitat after the fire. Explain your answer.
- b. Identify the type of natural selection (directional, stabilizing, or disruptive) that will most likely act on the beetle population.

The type of natural selection you identified in part (b) will change the phenotype distribution in the beetle population.

- c. Using your knowledge of natural selection, explain how the change in phenotype distribution will occur.