

**Self-Test: Volcanoes (CH10)****Completion**

Complete each statement.

1. A material's \_\_\_\_\_ is a measure of its resistance to flow.
2. The most explosive volcanoes are produced by magma with \_\_\_\_\_ viscosity that contains a large quantity of dissolved gases.
3. Particles of rock, lava, ash, and other volcanic fragments blown from the vent of a volcano are called \_\_\_\_\_.
4. The accumulation of fluid basaltic lava produces a(n) \_\_\_\_\_ volcano.
5. The most explosive volcanic eruptions come from the \_\_\_\_\_ type of volcano.
6. Saturated volcanic debris that rapidly moves down steep volcanic slopes as a mudflow is a(n) \_\_\_\_\_.
7. An eroded remnant of a pipe that once fed a volcano is called a(n) \_\_\_\_\_.
8. The largest intrusive igneous body is a(n) \_\_\_\_\_.
9. A(n) \_\_\_\_\_ is a sheetlike body that is produced when magma is injected into a fracture that cuts across rock layers.
10. A(n) \_\_\_\_\_ is an igneous intrusive feature that forms from a lens-shaped mass of magma that arches the overlying strata upwards.
11. The change in temperature with depth is the \_\_\_\_\_ gradient.
12. Rocks can melt without changing temperature when their confining pressure is \_\_\_\_\_.
13. Where slabs of oceanic lithosphere are subducted under continental lithosphere a(n) \_\_\_\_\_ can form.
14. During seafloor spreading, most volcanic magma is produced at \_\_\_\_\_.
15. A hot plume of mantle material, which may extend to the core-mantle boundary, produces a(n) \_\_\_\_\_, a volcanic region a few hundred kilometers across.

**Short Answer**

16. What are the primary factors that determine whether a volcano erupts explosively or relatively quietly?
17. What type of lava flow resembles the twisted braids in ropes as it cools and hardens?

Name: \_\_\_\_\_

ID: A

18. Why are pyroclastic flows not commonly associated with shield volcanoes?
19. List the four basic types of plutons.
20. How do scientists classify intrusive igneous features?
21. What is a caldera?
22. How might the surface landscape above a laccolith look? Explain your answer.
23. How does most magma form?
24. What are the plate tectonic settings in which most volcanoes occur?
25. Why do some volcanoes not occur at plate boundaries?

**Essay**

26. List and describe the three main types of volcanoes.
27. Briefly describe the roles of heat, pressure, and water in the origin of magma.