

12. **(6 pts)** Japan is part of an island arc. Sketch and label the type of plate tectonics that formed Japan. How is it different from what formed the Andes?
13. **(4 pts)** I collected garnets weathering from a schist (metamorphic) in the Alps. Why would you expect to find schist in the Alps but not in Iowa?
14. **(3 pts)** Where in the US is the most famous transform fault? Describe what is happening. Why does it result in earthquakes?
15. **(6 pts)** Precursor events for volcanoes are events that indicate an eruption will soon occur. What are three examples?
16. **(4 pts)** On both the west coast of the US and in the Northeast, seacoasts are relatively rocky with cliffs. However, the causes are different. Explain.
17. **(6 pts)** Explain how mountain building is related to the rock cycle. Be as specific as possible. Draw and label a sketch if needed. Consider igneous, metamorphic, and sedimentary rocks.

18. **(6 pts)** Draw and label a passive margin with a midoceanic spreading center. Label the continental shelf, continental slope, continental rise, abyssal plain, and mid-ocean ridge.
19. **(4 pts)** Which eruption is likely to be most violent—under the ocean at midocean spreading centers or in Yellowstone? Give three reasons.
20. **(5 pts)** Think of one of the review questions that you prepared for this test that has not been asked. Answer it here.