

Name _____

Weathering Regents Questions

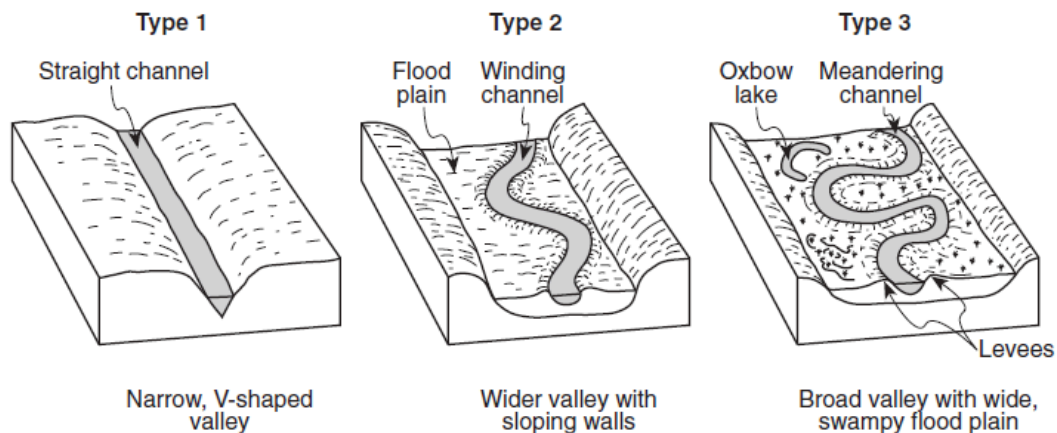
Which igneous rock, when weathered, could produce sediment composed of the minerals potassium feldspar, quartz, and amphibole?

- | | |
|-------------|--------------|
| (1) gabbro | (3) andesite |
| (2) granite | (4) basalt |

Note to Student from Ms. Louis,

To answer this question Look at the Rock charts in the ESRT and see which rock contains the minerals mentioned in the question.

Base your answers to questions 61 through 63 on the block diagrams below, which show three types of streams with equal volumes.



- 61 Explain how the differences between the type 1 and type 3 stream channels indicate that the average velocities of the streams are different. [1]
- 62 Explain why the outside of the curve of a meandering channel experiences more erosion than the inside of the curve. [1]
- 63 Explain how the cobbles and pebbles that were transported by these streams became smooth and rounded in shape. [1]
-

24 The photograph below shows a valley.



Which agent of erosion most likely produced this valley's shape?

- | | |
|------------------|-------------------|
| (1) blowing wind | (3) moving ice |
| (2) ocean waves | (4) running water |

Note to student REMEMBER riVer and Glacier!

Glaciers form what shaped valleys? Rivers form what shaped valleys?

27 The narrow, sandy, barrier islands in the ocean along the south coast of Long Island were deposited by

- | | |
|-------------|-----------------|
| (1) wind | (3) glacial ice |
| (2) streams | (4) wave action |

Note to students: Think, what is like a snow plow pushing the sand to create Long Island?

15 Which agent of erosion most likely formed the drumlins and finger lakes in New York State?

- (1) running water (3) wave action
- (2) moving ice (4) mass movement

8 Which soil characteristic allows greater amounts of water retention?

- (1) large-size particles
- (2) small-size particles
- (3) high-density particles
- (4) low-density particles

9 A paved blacktop parking lot was built on what was once a soil-covered field. This area will now experience increased runoff when rain occurs because the paved parking lot has

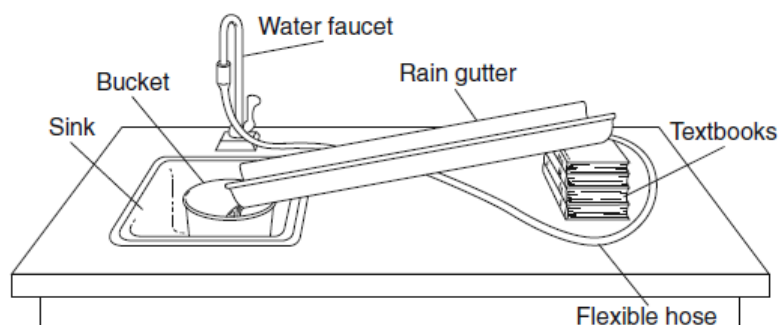
- (1) less capillarity (3) greater infiltration
- (2) less permeability (4) greater porosity

26 Sandstone, limestone, and conglomerate cobbles are found in a streambed in New York State where the surrounding bedrock is composed of shales and siltstones. The most likely explanation for the presence of these cobbles is that they were

- (1) weathered from the surrounding bedrock
- (2) formed when shale and siltstone bedrock were eroded
- (3) transported to this area from another region
- (4) metamorphosed from shale and siltstone

(Hmmm...cobbles are typically rounded...I wonder if that info will help you.)

Base your answers to questions 34 and 35 on the diagram and data table below. The diagram shows the equipment used to determine the factors affecting the rate of erosion in a stream. The data table shows the time it took a 10-gram sample of quartz sand to move 100 centimeters down the rain gutter under various conditions.



Data Table

Rain Gutter Slope	Water Velocity	Erosion Time (s)	
		Fine Sand	Coarse Sand
5°	slow	20	60
	fast	15	40
10°	slow	15	40
	fast	10	30
20°	slow	10	30
	fast	5	15

34 In this experiment, the water velocity could be increased by

- (1) decreasing the slope of the rain gutter
- (2) increasing the amount of water from the faucet
- (3) lowering the flexible hose
- (4) widening the rain gutter

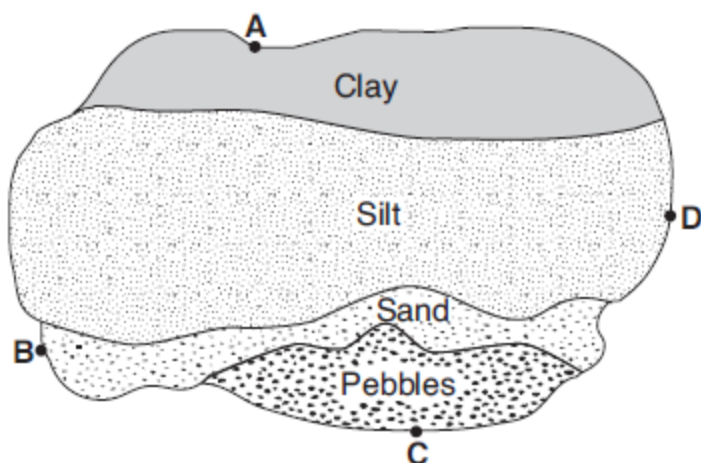
35 What is the relationship between the water velocity and the rate of erosion?

- (1) If the water velocity decreases, the rate of erosion increases.
- (2) If the water velocity increases, the rate of erosion increases.
- (3) If the water velocity remains constant, the rate of erosion decreases.
- (4) If the water velocity remains constant, the rate of erosion increases.

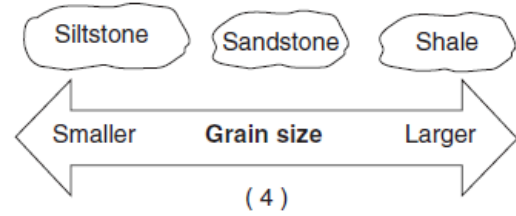
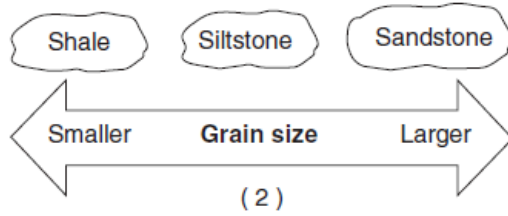
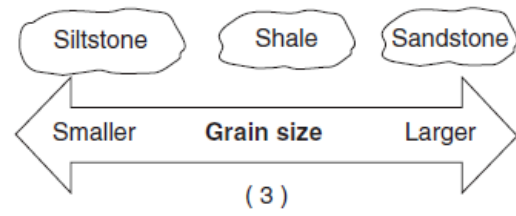
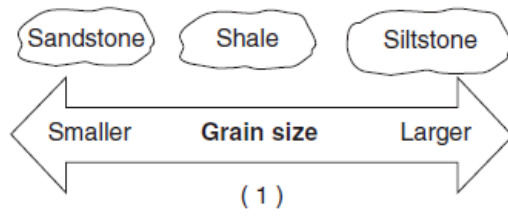
28 A stream's velocity decreases from 100 cm/s to 5 cm/s. Which size sediment particles will still be transported by the stream?

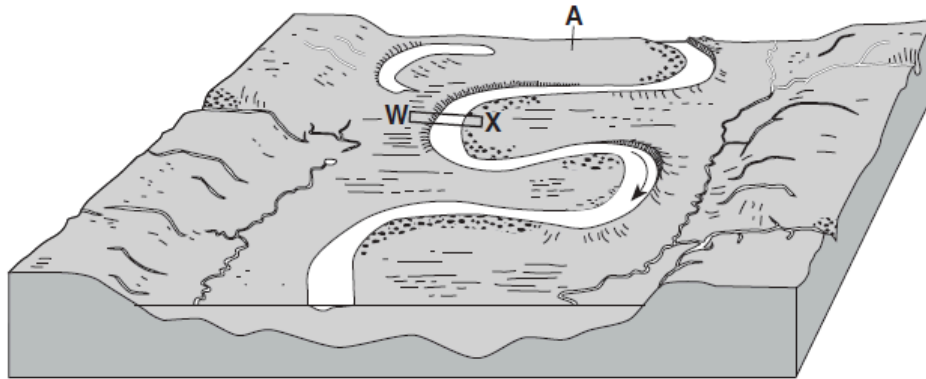
- (1) pebbles, sand, silt, and clay
- (2) sand, silt, and clay, only
- (3) silt and clay, only
- (4) clay, only

21 The map below shows an overhead view of sediments that have accumulated at the bottom of a lake. Points *A* through *D* represent locations on the shoreline of the lake.



30 Which diagram best shows the grain size of some common sedimentary rocks?



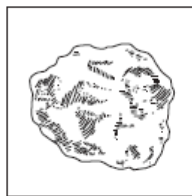


(Not drawn to scale)

36 The landscape feature at location A is best described as

- (1) a sandbar
- (2) an escarpment
- (3) a delta
- (4) a floodplain

37 Which particle of quartz shows evidence of being transported the farthest distance by the stream?



(1)



(2)



(3)

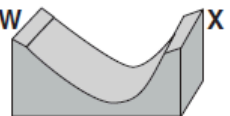


(4)

38 Which cross section best represents the shape of the stream bottom at WX?



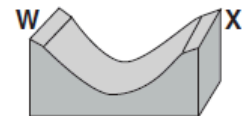
(1)



(2)



(3)



(4)