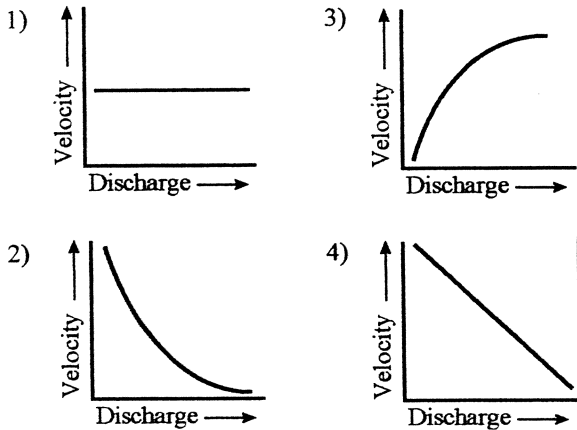
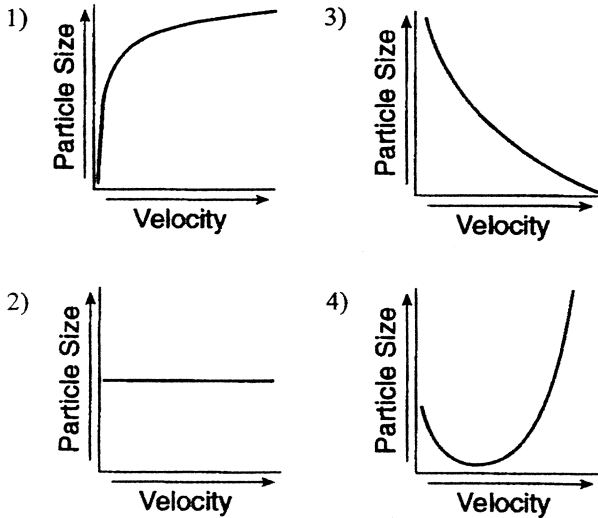


1. Stream velocity and stream discharge were recorded continuously at the same location in a stream channel. Which graph best shows the relationship between stream velocity and stream discharge at this location?



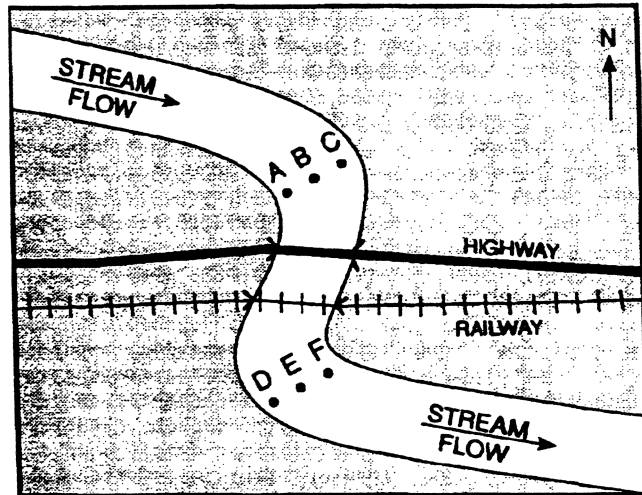
2. Which graph best shows the general relationship between stream velocity and the diameter of particles transported by a stream?



3. As the gradient of a stream increases, the stream's ability to carry sediment

- 1) decreases
- 2) increases
- 3) remains the same

Base your answers to questions 4 through 7 on the map below, which represents a meandering stream with a constant gradient. The arrows show the direction of stream flow. Points A through F are locations in the stream.



4. At which point would the most material be deposited by the stream?

- 1) F
- 2) B
- 3) C
- 4) D

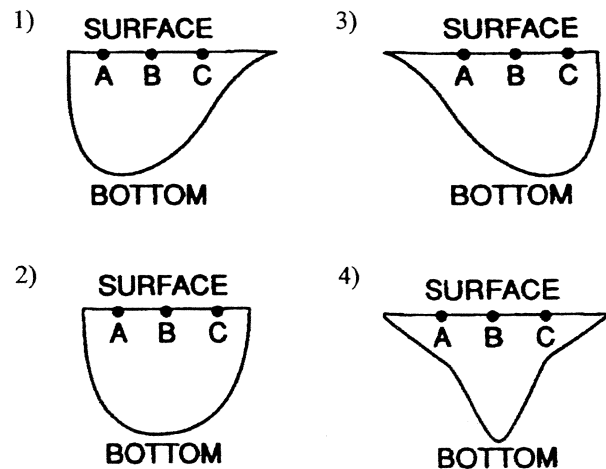
5. With which landscape feature would this meandering stream most likely be associated?

- 1) a canyon
- 2) a gently sloping plain
- 3) a large area of rapids
- 4) a mountainous area

6. At which point would the stream most likely be flowing fastest?

- 1) A
- 2) B
- 3) C
- 4) F

7. Which diagram best represents the cross section of the stream through points A, B, and C?

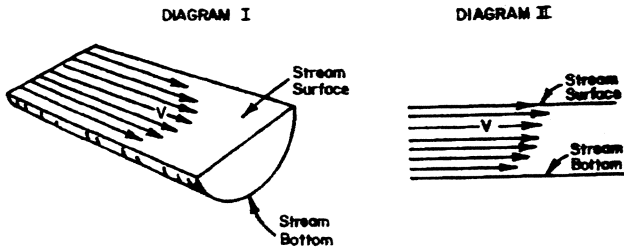


## Erosion - Water

8. A sediment particle transported by a stream over a long period of time will most likely show

- 1) a decrease in mass and number of angular edges
- 2) a decrease in density and size
- 3) an increase in weight and hardness
- 4) an increase in volume and number of cleavage planes

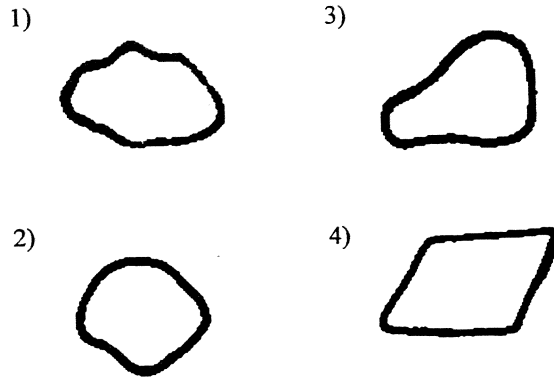
9. In the two diagrams below, the length of the arrows represents the relative velocities of stream flow at various places in a stream. Diagram I shows the different water velocities across the surface. Diagram II shows the different water velocities at various depths.



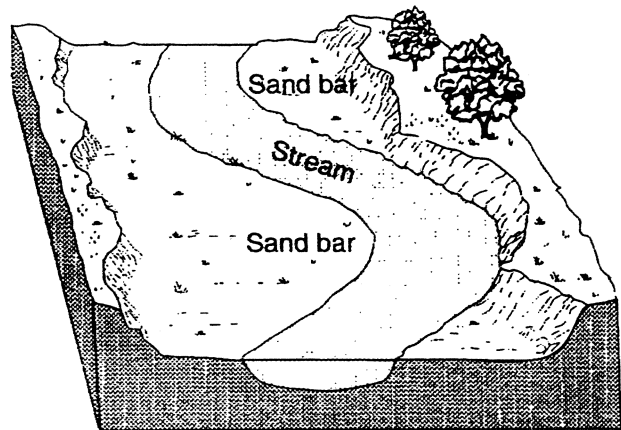
At which location in the stream is the water velocity greatest?

- 1) at the center along the bottom
  - 2) at the center near the surface
  - 3) at the sides along the bottom
  - 4) at the sides near the surface
10. An increase in the velocity of a stream is most likely due to
- 1) an increase in stream discharge
  - 2) an increase in the width of the riverbed
  - 3) a decrease in the slope of the stream channel
  - 4) a decrease in the amount of material held in suspension

11. Based on the diagrams of rock fragments below, which shows the *least* evidence of erosion?



12. The diagram below shows a portion of a stream.



The sand bars formed as a direct result of

- 1) erosion due to a decrease in stream velocity
  - 2) erosion due to an increase in stream velocity
  - 3) deposition due to a decrease in stream velocity
  - 4) deposition due to an increase in stream velocity
13. Where is the most deposition likely to occur?
- 1) on the side of a sand dune facing the wind
  - 2) at the mouth of a river, where it enters an ocean
  - 3) at a site where glacial ice scrapes bedrock
  - 4) at the top of a steep slope in a streambed