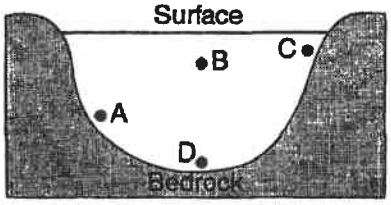
Name: _____ **Stream Quiz** Date: _____

(1) The diagram below shows a cross section of a river. Letters A, B, C, and D represent points in the river.

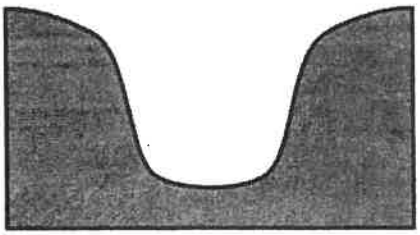


At which point is the water most likely to have the greatest velocity?

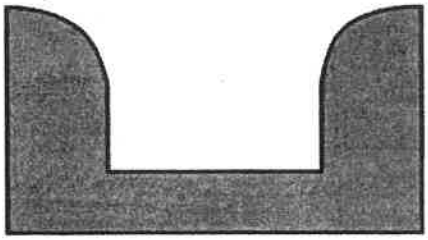
A) *A* B) *B* C) *C* D) *D*

(2) Which cross section best represents the valley shape where a rapidly flowing stream is cutting into the bedrock in a mountainous area?

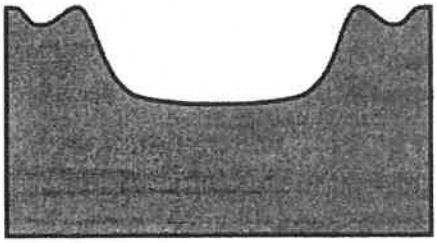
A)



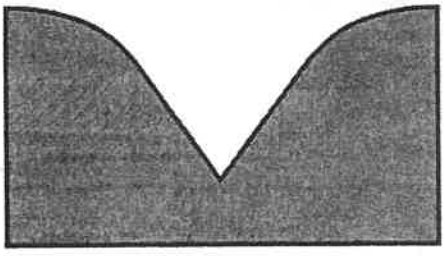
B)



C)



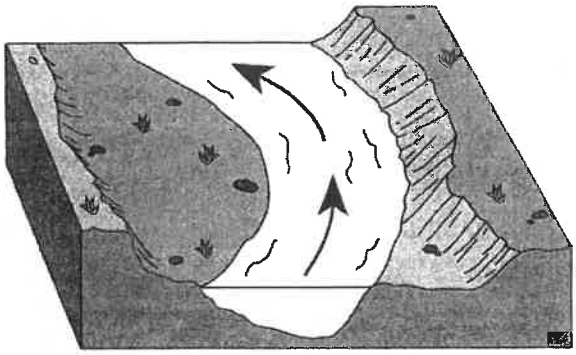
D)



ANSWERS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____
9. ____
10. ____
11. ____
12. ____
13. ____
14. ____
15. ____

(3) The diagram below shows a section of a meander in a stream. The arrows show the direction of stream flow.



The streambank on the outside of this meander is steeper than the streambank on the inside of this meander because the water on the outside of this meander is moving

A) slower, causing deposition
B) faster, causing deposition
C) slower, causing erosion
D) faster, causing erosion

(4) Base your answer to the following question on The table below shows the density of four mineral samples.

Mineral	Density (g/cm^3)
Cinnabar	8.2
Magnetite	5.2
Quartz	2.7
Siderite	3.9

If the shape and size of the four mineral samples are the same, which mineral will have the greatest settling rate in water?

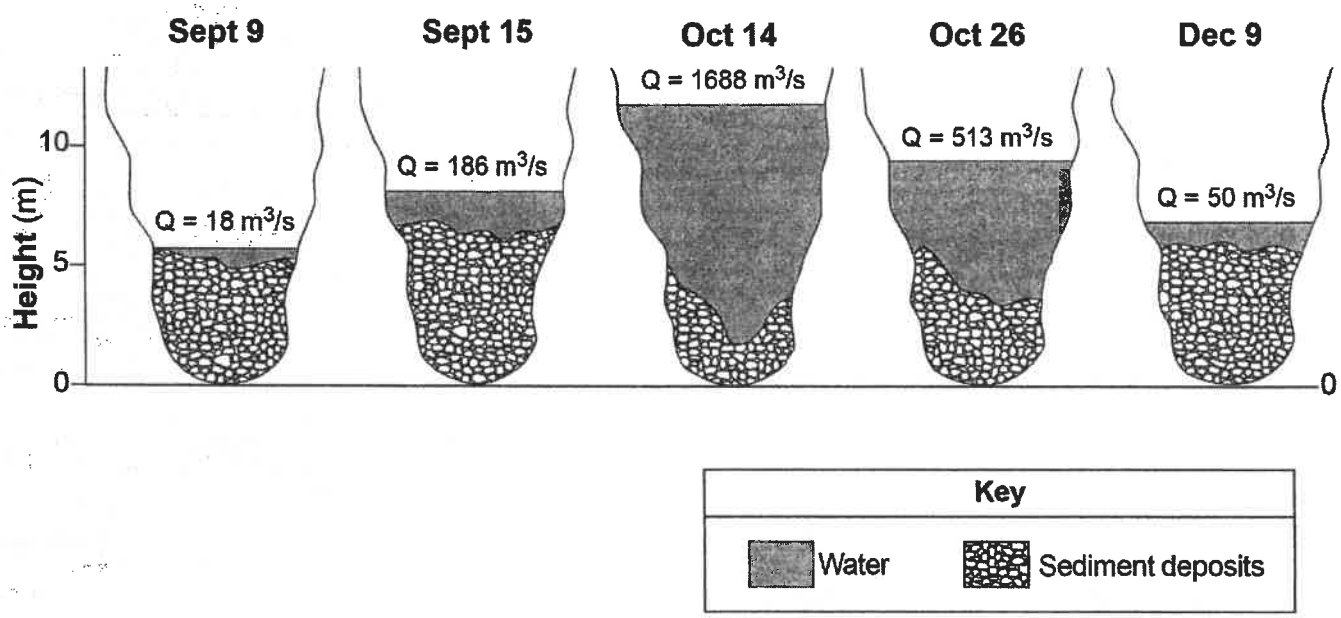
A) cinnabar B) magnetite
C) quartz D) siderite

(5) Sediment is deposited in a river delta because the

A) velocity of the river decreases
B) force of gravity decreases
C) volume of the river increases
D) gradient of the river increases

Stream Quiz

Base your answers to questions 6 and 7 on the cross sections below, which represent a particular location of the channel of the San Juan River in Utah. Changes in river discharge (Q), in cubic meters per second, and sediment deposits before, during, and after a flood are shown.



(6) If the greatest velocity of the San Juan River on December 9 was 10 centimeters per second, what was the approximate diameter of the largest particles that the river could have carried?

A) 1.0 cm B) 2.0 cm C) 10.0 cm D) 0.2 cm

(7) During the time from September 9 to October 14, the thickness of the sediment deposits at the bottom of the San Juan River's channel

A) decreased, only
B) increased, only
C) decreased and then increased
D) increased and then decreased

(8) A stream is carrying sediment particles ranging from 0.0004 to 25.6 centimeters. When the stream velocity decreases from 300 to 100 centimeters per second, the stream will most probably deposit

A) silt and clay
B) sand and silt
C) pebbles and sand
D) cobbles and pebbles

(9) A river's current carries sediments into the ocean. Which sediment size will most likely be deposited in deeper water farthest from the shore?

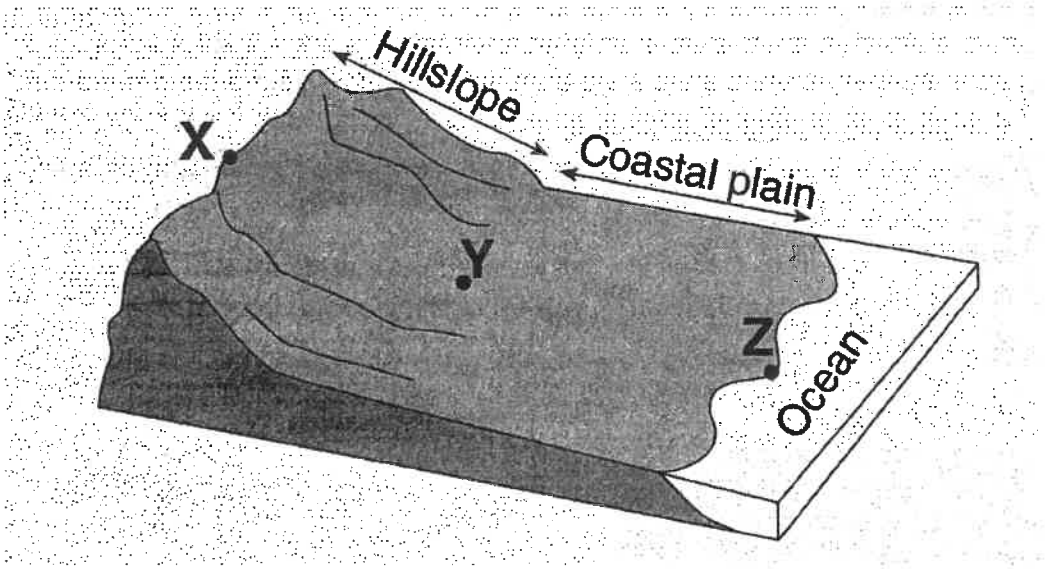
A) pebble B) sand
C) silt D) clay

(10) The greater the time that stream sediment is transported, the greater the probability that the sediment will become more

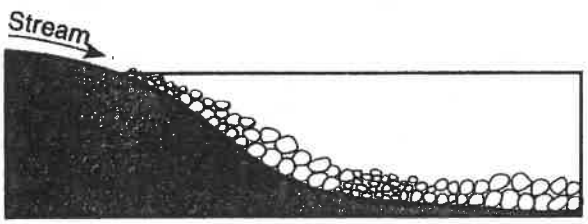
A) angular and smaller
B) angular and larger
C) rounded and smaller
D) rounded and larger

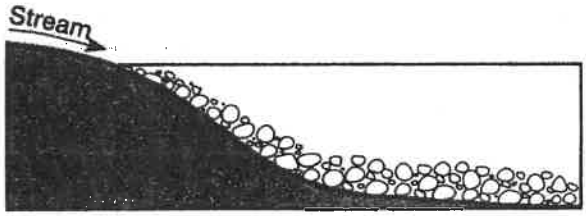
Stream Quiz

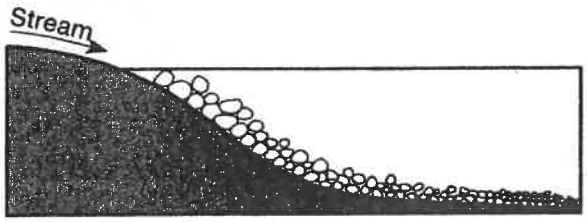
(11) Base your answer to the following question on the diagram below, which shows a coastal region in which the land slopes toward the ocean. Point X is near the top of the hill, point Y is at the base of the hill, and point Z is a location at sea level. The same type of surface bedrock underlies this entire region. A stream flows from point X through point Y to point Z. This stream is not shown in the diagram.

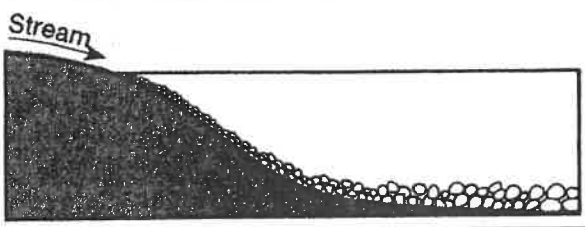


Which cross section best shows the pattern of sediments deposited by the stream as it enters the ocean near point Z?

A)


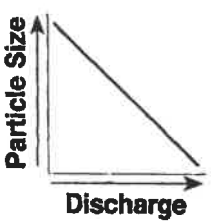
B)


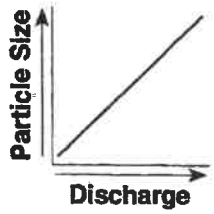
C)


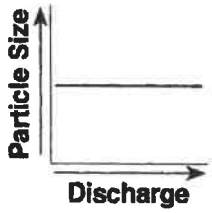
D)


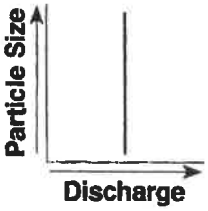
Stream Quiz

(12) Which graph best represents the correct relationship between the discharge of a river and the particle size that can be transported by that river?

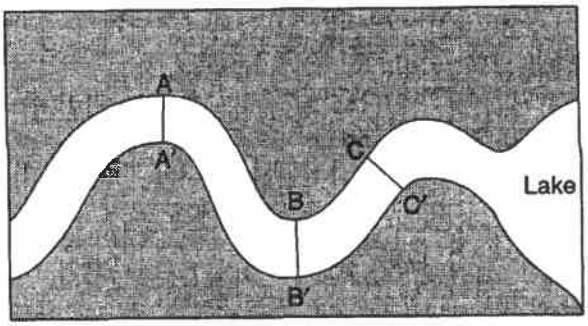
A)


B)


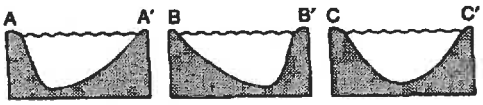
C)


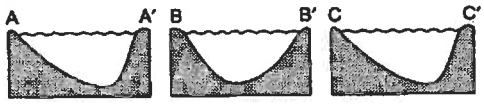
D)


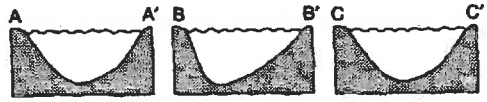
(13) The map below represents a meandering stream flowing into a lake. A student measured water depths in the stream at three locations: A-A', B-B', and C-C'.

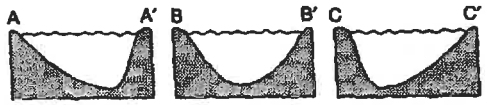


Which set of cross sections best represents the stream bed at the three locations?

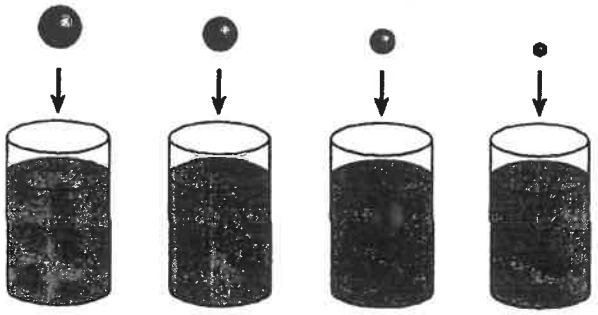
A)


B)


C)


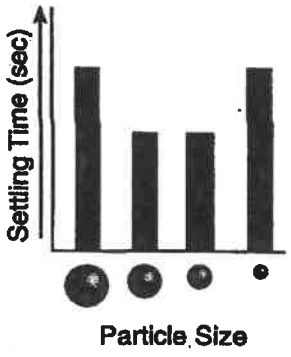
D)


(14) The diagram below shows four identical columns containing the same amount of water. Four different-sized spherical particles, made of the same uniform material, are dropped into the columns and settle to the bottom.

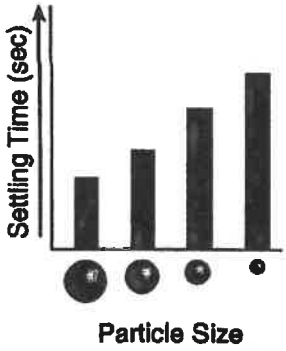


Which graph best shows the relative settling times of the four particles?

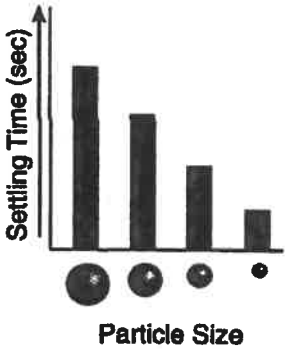
A)



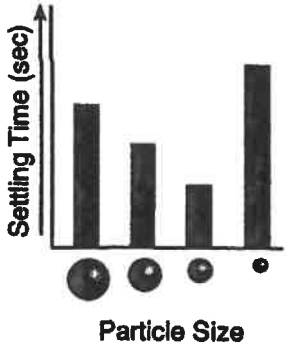
B)



C)



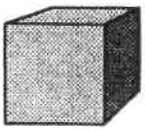
D)



(15) Four samples of aluminum, A, B, C, and D, have identical volumes and densities, but different shapes. Each piece is dropped into a long tube filled with water. The time each sample takes to settle to the bottom of the tube is shown in the table below.

Sample	Time to Settle (sec)
A	2.5
B	3.7
C	4.0
D	5.2

Which diagram most likely represents the shape of sample A?

A) 

B) 

C) 

D)