1. The model shows an electromagnet connected to a battery. Table 1 lists the number of turns of the coil of wire and the number of iron pins picked up by the electromagnet when 1 battery is used. Table 2 lists the batteries used and the number of iron pins picked up by the electromagnet when the coil of wire has 10 turns.

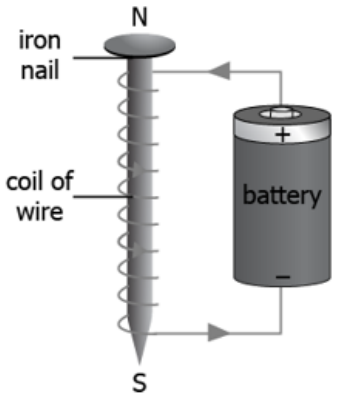


Table 1

Batteries Used	Number of Turns of Coil	Number of Iron Pins Picked Up
1	20	9
1	30	14
1	40	18

Table 2

Batteries Used	Number of Turns of Coil	Number of Iron Pins Picked Up
1	10	4
2	10	9
3	10	12

Based on the data, which setup of the electromagnet will pick up *at least* 20 iron pins?

A Use 1 battery and 25 turns of the coil of wire.

B Use 2 batteries and 8 turns of the coil of wire.

C Use 3 batteries and 5 turns of the coil of wire.

D Use 1 battery and 50 turns of the coil of wire.

2. A student wants to build a 3-D model of a plant cell. Based on an understanding of the structure and function of the cell wall, what should the student choose to represent the plant's cell wall?

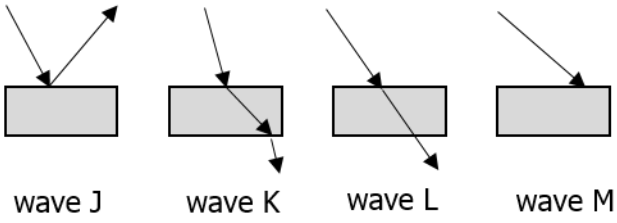
A cardboard box

B cotton towel

C dried beans

D plastic wrap

3. Examine the diagram of different waves labeled J-M.



Which wave *best* demonstrates the wave behavior of absorption?

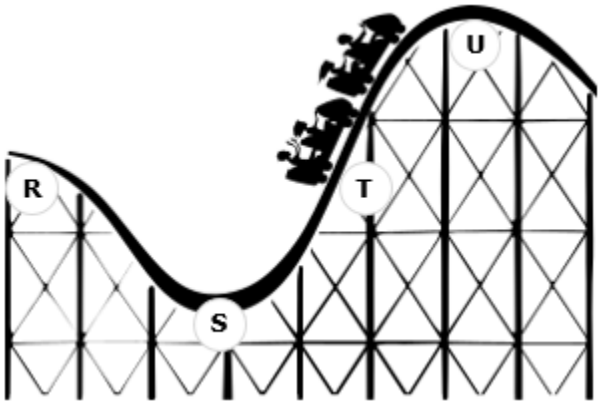
A wave J

B wave K

C wave L

D wave M

4. The diagram shows four different positions of a roller coaster.



At which position would the roller coaster have the *most* gravitational potential energy?

A position R

B position S

C position T

D position U