Water Pressure

Investigation

Instructions

You can use a half gallon milk carton or gallon milk container for this investigation.

1. Rinse out the container, and cut off the top. Use the tip of your pencil or pen to poke a small hole in it, about 3 inches from the bottom.
2. Arrange your experiment as shown in the diagram, so that water which comes out of the hole falls into a cake pan or similar container.
3. Fill the container with water while keeping your finger over the hole. Measure the distance from the top of the water to the hole, and record it. Remove your finger to allow water to flow, and measure the distance the stream of water travels before it hits the bottom of the cake pan.
4. After the water has dropped one inch, make both measurements again. Continue until there is not enough pressure to force the water into a stream as it comes out of the hole.
5. What are the variables of this experiment?

   _____

   _____
6. Which is independent and which is dependent?

   _____

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7. Graph your data, and sketch a line or curve that smoothly connects the points on your graph.
8. Find an equation that creates a line which closely matches your data.