

Problem Solving

Problem:

Save the world from this unstable, highly volatile and extremely toxic compound!

You have only a short time to neutralize this explosive liquid before it detonates with devastating consequences. In order to neutralize the compound you must evenly divide the liquid in the full flask into two of the flasks, so that each has exactly the same amount in it.

Materials:

Large flask (A) filled with exactly 8 cups of toxic waste

Medium flask (B) that holds exactly 5 cups

Small flask (C) that holds exactly 3 cups

Funnel

Rubber gloves

Procedure:

You must be precise. (No eye-balling.) Each time you pour you must either empty the flask you are pouring from or fill the flask you are pouring into. Time is of the essence—use as few steps as possible!

Use the attached chart to carefully record each step of your process. You may not need to use the entire chart (that is, it may not take you ten steps to complete the task).

You may start over at any time by pouring all of the liquid back into the large flask.