## The Two Storage Tanks Task<sup>1</sup>

Two large storage tanks, T and W, contain water. T starts losing water at the same time additional water starts flowing into W. The graph below shows the amount of water in each tank over a period of time. Assume that the rates of water loss and water gain continue as shown.



1. When will the two tanks contain the same amount of water? Explain how you found your answer and interpret your solution in terms of the problem.

- 2. If you have not already done so, write an equation for each storage tank that can be used to determine the amount of water in the tank at any given number of hours.
  - a. Explain what the different parts of each equation mean in terms of the problem.
  - b. Explain what the different parts of each equation mean in terms of the graph.

<sup>&</sup>lt;sup>1</sup> Adapted from NAEP Released Items, 2003-8M10 #13. <u>http://nces.ed.gov/NationsReportCard/nqt</u>