The Math Dawg: Applications with Linear Equations_2

CALCULATOR ALLOWED:

A water tower has water being drained out at a constant rate of change. After 3 hours it is recorded that there are 59480 gallons of water left in the tank. After 11 hours it is recorded that there are 52760 gallons of water left in the tank.

a. Write a function $W(t)$ which gives the amount of water left in the tank after t hours. First find the slope of the linear function using a slope table. Then find the "y-intercept" of the function by plugging in one of the points from your slope table.

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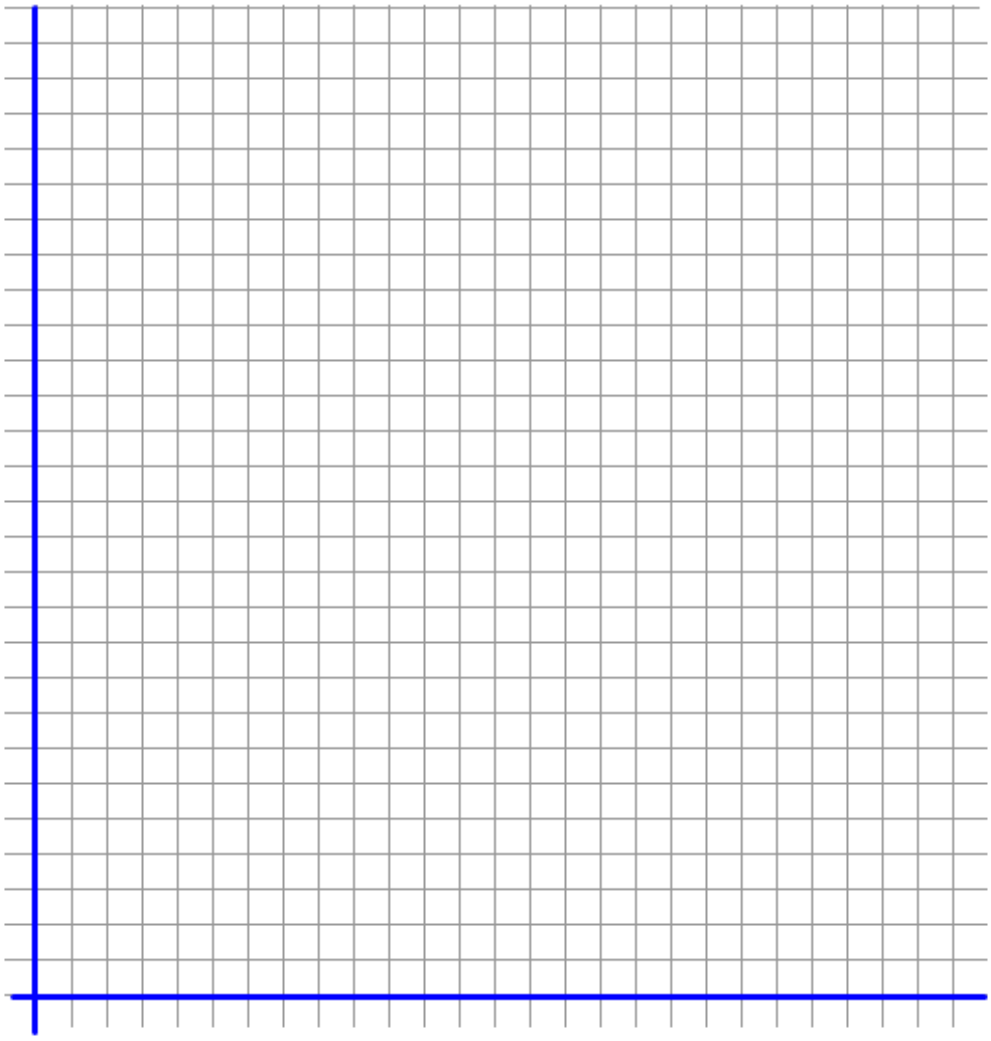
b. Graph your function on the grid provided below.



c. If the trend continues how much water is remaining in the tank after 20 hours?

d. How much water was in the tank at time t = 0 hours, when the draining process began?

e. To the nearest hour when will the tank be empty of water?

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