

## Distance-Time Graphs #2

1 To the right is a graph of the amount of water in a tank.

a) How many litres were in the tank at the start?

\_\_\_\_\_

b) When was the tank refilled, and by how much?

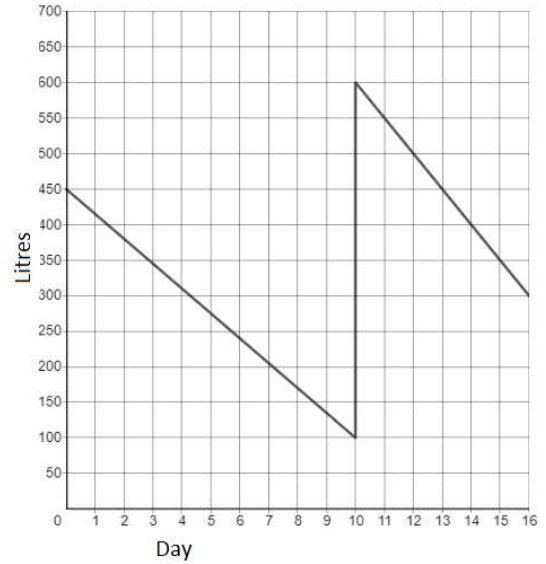
\_\_\_\_\_

c) What rate was the water being used in the first five days?

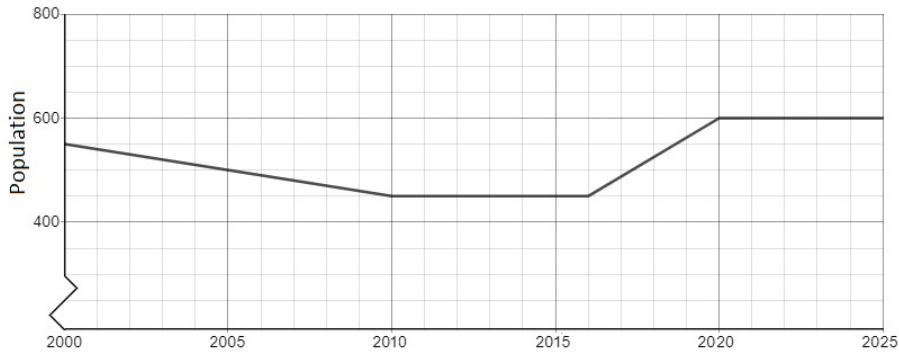
\_\_\_\_\_

d) After it was refilled, did the water level drop more quickly?

\_\_\_\_\_



2 Below is a plot of the population of a small town over several years.



MAN<sup>2025</sup>  
vs  
MATHS

a) What was the population of the town in 2005?

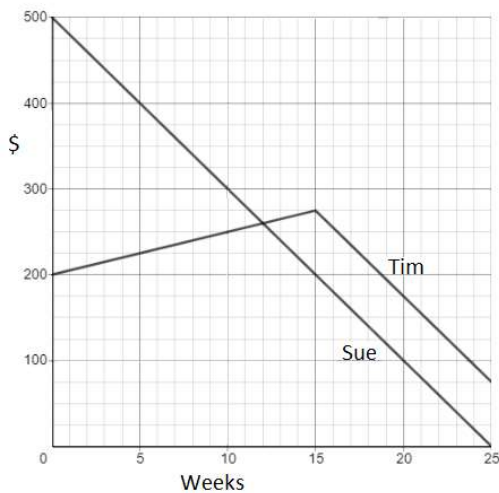
\_\_\_\_\_

b) What was happening to the population of the town from 2000 to 2010?

\_\_\_\_\_

c) How fast did the population grow after the new subdivision was opened? (A subdivision is an area of new housing.)

\_\_\_\_\_



3 To the left is a graph of Tim and Sue's bank balances.

a) When do they have the same amount in the bank?

\_\_\_\_\_

b) How fast is Sue spending her money?

\_\_\_\_\_

c) What does it mean that for the last weeks that their lines are parallel?

\_\_\_\_\_

\_\_\_\_\_

## Answers : Distance-Time Graphs #2

1 To the right is a graph of the amount of water in a tank.

a) How many litres were in the tank at the start?

**450 Litres**

b) When was the tank refilled, and by how much?

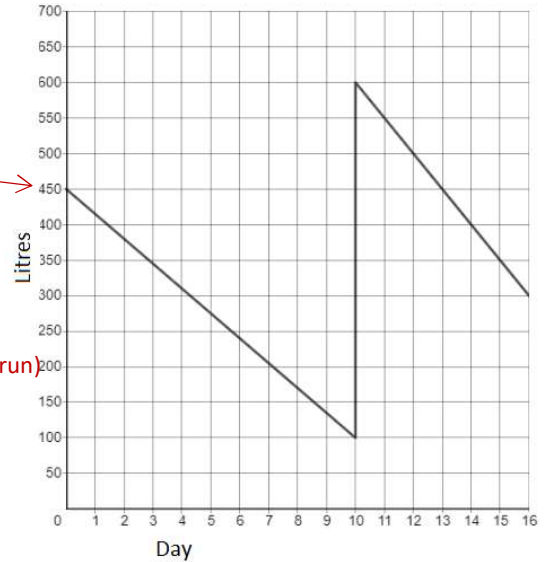
**Day 10 by 500 Litres (from 100 to 600 L)**

c) What rate was the water being used in the first five days?

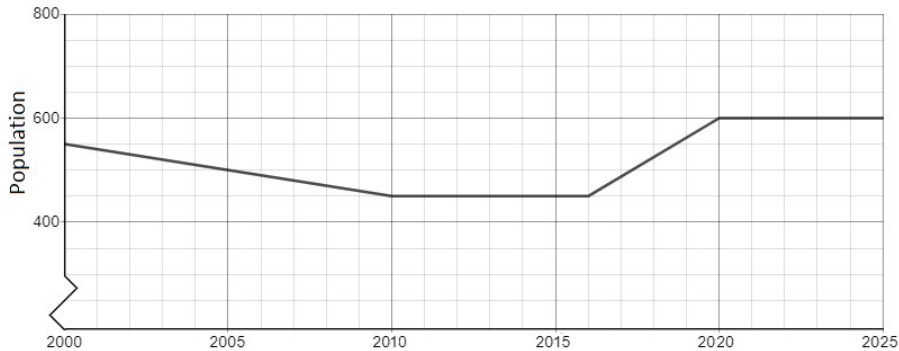
**35 L per day (drop of 350 L over 10 days, then rise over run)**

d) After it was refilled, did the water level drop more quickly?

**Yes, the graph is steeper (you must give a reason)**



2 Below is a plot of the population of a small town over several years.



MAN<sup>2025</sup>  
VS  
MATHS

a) What was the population of the town in 2005?

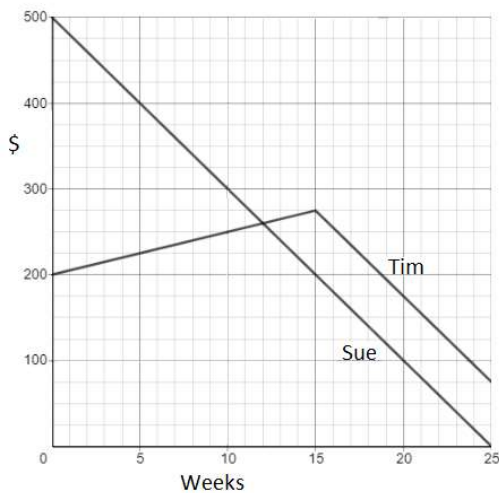
**500 people (halfway between 400 and 600)**

b) What was happening to the population of the town from 2000 to 2010?

**It was slowly decreasing (slope is gently negative) by 10 people per year (100 lost in 10 years, rise over run)**

c) How fast did the population grow after the new subdivision was opened? (A subdivision is an area of new housing.)

**By 37.5 people a year (increased by 150 people, from 450 to 600, in the 4 years from 2016 to 2020)**



3 To the left is a graph of Tim and Sue's bank balances.

a) When do they have the same amount in the bank?

**Week 12 (where the lines cross)**

b) How fast is Sue spending her money?

**\$20/week (\$500 in 25 weeks, rise over run)**

c) What does it mean that for the last weeks that their lines are parallel?

**They are spending money at the same rate**

**or They are both spending \$20 each week**