Evaluation Activity

1. Tap A takes 9 minutes to fill the tank. Tap B takes 12 minutes to fill the same tank. How many minutes will both taps take to fill the tank if they are opened at the same time?
2. Tap Q fills $\frac{1}{24}$ of a tank in one minute and tap P fills $\frac{1}{48}$ of a tank in one minute. How long will both tapes take to fill the tank if they are left open at the same time?
3. Akiiki can dig a garden in 8 days and Bernard can dig the same garden in 10 days.
   a) What fraction of the garden can they dig in one day if both work together?
   b) What fraction of the garden is left after both have been working together for 4 days?
4. Three pumps are connected to one fuel tank, pump A takes 9 hours to fill the tank, pump B takes 12 hours to fill the tank and pump C takes 18 hours to fill the pump.
   a) How much time will all pumps take to fill the same tank if opened at once?
   b) Given that 150 litres of petrol are filled in the tank every after 20minutes. How many litres does the tank hold when it is completely full?
5. Moses paints a house in 24hours while Musa paints a house in only 8hours. How long will both Musa and Moses take to paint the same house working on the same rate?
6. At a petrol station, 3 pumps are connected to the tank from the main source. Pump X takes 24minutes to fill the tank, pump Y takes 6 minutes to fill the tank and pump Z takes 8minutes to fill the same tank.
   a) How long will it take for the three pumps to fill the tank if opened at the same time?

b) If 120 litres of petrol are filled in the tank each 5seconds, find the capacity of the tank.

c) How long will the three pumps take to fill the tank if it is $\frac{2}{3}$ full of petrol?

7. Tap M fills a tank in 4 hours and Tap N takes 2 hours longer than tap M to fill the tank. How many hours will both taps take to fill the tank if opened at the same time.
8. Tap A takes 12min to fill the tank and tap B takes 18min to fill the same tank. Find the total capacity of the tank if both taps fill the tank at a rate of 50 litres per minute.