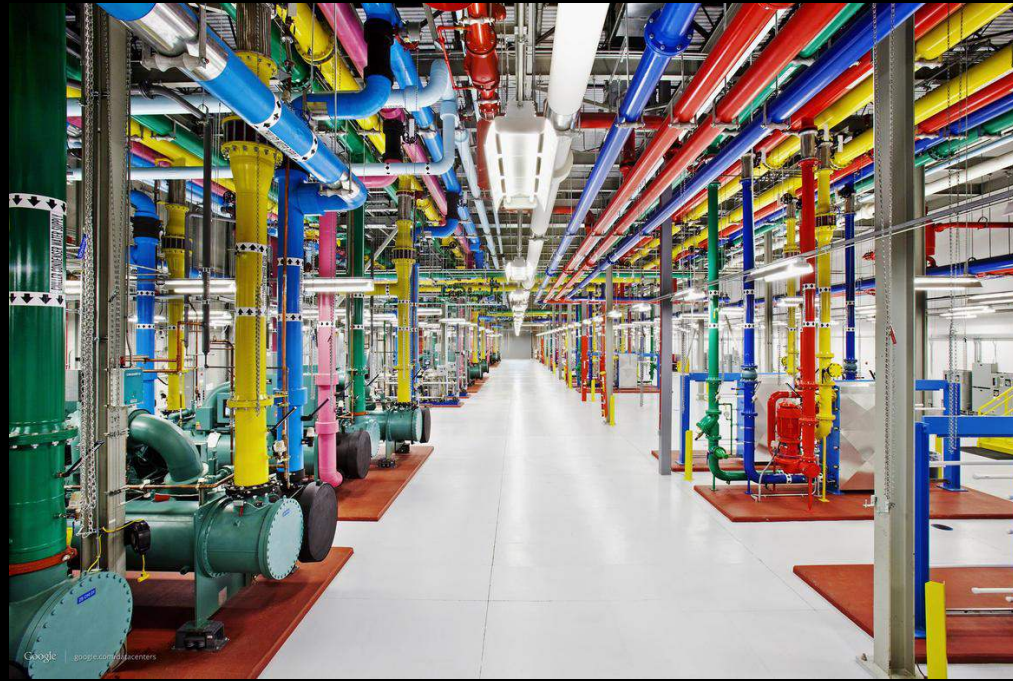


These Slides Accompany the YouTube Video Tutorial:  
<https://www.youtube.com/watch?v=yAhCmado-PM>



## Pipes and Cisterns

9/9/2016

1

A pipe can fill the bucket in 2 min and another in 3 min. Running together, how much time will they take to fill the bucket.

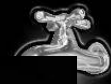


9/9/2016

2

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<https://www.youtube.com/watch?v=yAhCmado-PM>

A pipe can fill the bucket in 2 min and another in 3 min. Running together, how much time will they take to fill the bucket.



9/9/2016

3

Pipes A and B can fill a tank in 5 and 6 hours respectively. Pipe C can empty it in 12 hours. If all the three pipes are opened together, then the tank will be filled in?

60/17 Hours

9/9/2016

4

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A tank is filled in 10 hours by three pipes A, B and C. Pipe C is twice as fast as B and B is twice as fast as A. How much time will pipe A alone take to fill the tank?

9/9/2016

70 hour

5

Three pipes A, B and C can fill a tank from empty to full in 30 minutes, 20 minutes, and 10 minutes respectively. A, B & C discharge chemical solutions P, Q and R respectively. What is the proportion of the solution R in the tank after 3 minutes.

9/9/2016

6/11 Hours

6

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A tap can fill a tank in 4 hours. After half the tank is filled, three more similar taps are opened. What is the total time taken to fill the tank completely?

9/9/2016

2 hr 30 min

7

A pump can fill a tank with water in 2 hours. Because of a leak, it took 2 hours 30 minutes to fill the tank. In how many minutes the leak can drain all the water of the tank?

9/9/2016

10 hours

8

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Two pipes can fill a tank in 25 and 30 minutes respectively and a waste pipe can empty 3 gallons per minute. All the three pipes working together can fill the tank in 15 minutes. What is the capacity of the tank?

450 gallons

9/9/2016

9

Two pipes A and B can fill a cistern in 36 and 45 minutes respectively. Both pipes are opened. To fill the cistern in just half an hour, pipe B must be turned off after?

$15\frac{1}{2}$  min

9/9/2016

10

These Slides Accompany the YouTube Video Tutorial:  
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A tank is filled by three pipes with uniform flow. The first two pipes operating simultaneously fill the tank in the same time during which the tank is filled by the third pipe alone. The second pipe fills the tank 5 hours faster than the first pipe and 5 hours slower than the third pipe. What is the time required by the first pipe to fill the tank?

17.07 hours

9/9/2016

11

A tank of 300 liters capacity has been filled with water through two pipes, the first pipe having been opened 5 hours longer than the second. If the first pipe were open as long as the second pipe, the first pipe delivers half the amount of water delivered by second pipe; if the two pipes were opened simultaneously, the tank would be filled up in 20 hours. How long was the first pipe open?

70/3 hours

9/9/2016

12

These Slides Accompany the YouTube Video Tutorial:  
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Two pipes A and B fill up a half tank in 1.2 hours. Pipe B was kept open for half the time required by pipe A to fill the tank by itself. Then pipe A was kept open for as much time as was required by the pipe B to fill up  $\frac{1}{3}$  of the tank by itself. It was found that the tank was  $\frac{5}{6}$  full. The least time in which any of the pipes can fill the tank fully is?

9/9/2016

$a = 5/12 - b$   
4 hours  
 $b = 5/24, 1/6$   
 $a = 5/24, 1/4$

13

Next Class (Races, Head Start, Dead Heat): In a 2000m race between A and B. A gives B a start of a minute but still beats him by 200 m. When he increases the head start to 80 seconds, the race ends in dead heat. Find the speed of A.

9/9/2016

60/17 Hours

14

Examrace