# EduSahara™ Learning Center Assignment

**Grade : Class VIII, SSC**
**Chapter : Direct and Inverse Proportions**
**Name : Pipe Problems**
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1. Pipe A can fill a tank in 9 hrs and pipe B can empty the full tank in 81 hrs . If both the pipes are opened together, in how much time will the tank become full?

(i) $9\frac{7}{8}$ hrs (ii) $10\frac{1}{6}$ hrs (iii) $10\frac{1}{10}$ hrs (iv) $10\frac{3}{8}$ hrs (v) $10\frac{1}{8}$ hrs

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2. Two pipes can fill a tank in 15 min. and 27 min. respectively. Both pipes are opened together and after some time the first pipe is closed and the tank becomes full in $23\frac{2}{5}$ min. For how much time was first pipe open?

(i) 1 min (ii) 2 min. (iii) 4 min. (iv) 3 min. (v) -1 min.

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3. Due to a leak at the bottom, pipe Y takes $5\frac{5}{8}$ hrs to fill the tank. The leak alone can empty the full tank in 45 hrs In what time can pipe Y alone fill the tank when the leak is closed?

(i) 5 hrs (ii) 6 hrs (iii) 4 hrs (iv) 8 hrs (v) 3 hrs

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4. Pipe A can fill a tank in 2 hrs and pipe B can empty the full tank in 16 hrs . If both the pipes are opened together, in how much time will the tank become full?

(i) 2 hrs (ii) $2\frac{2}{9}$ hrs (iii) $2\frac{2}{7}$ hrs (iv) $2\frac{4}{7}$ hrs (v) $2\frac{2}{5}$ hrs

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5. Two pipes can fill a tank in 6 min. and 11 min. respectively. Both pipes are opened together and after some time the first pipe is closed and the tank becomes full in $9\frac{1}{6}$ min. For how much time was first pipe open?

(i) 1 min (ii) -2 min. (iii) 0 min. (iv) 2 min. (v) 4 min.

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Due to a leak at the bottom, pipe Y takes $4\frac{4}{7}$ hrs to fill the tank.

6. The leak alone can empty the full tank in 32 hrs

In what time can pipe Y alone fill the tank when the leak is closed?

(i) 3 hrs (ii) 7 hrs (iii) 2 hrs (iv) 5 hrs (v) 4 hrs

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Pipe A can fill a tank in 5 hrs and pipe B can empty the full tank in

7. 15 hrs . If both the pipes are opened together,

in how much time will the tank become full?

(i) 8 hrs (ii) $7\frac{1}{4}$ hrs (iii) $8\frac{1}{2}$ hrs (iv) $7\frac{1}{2}$ hrs (v) $6\frac{1}{2}$ hrs

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Two pipes can fill a tank in 7 min. and 22 min. respectively. Both pipes are

8. opened together and after some time the first pipe is closed and the tank

becomes full in $9\frac{3}{7}$ min. For how much time was first pipe open?

(i) 3 min. (ii) 4 min. (iii) 1 min (iv) 5 min. (v) 6 min.

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Due to a leak at the bottom, pipe Y takes 12 hrs to fill the tank.

9. The leak alone can empty the full tank in 12 hrs

In what time can pipe Y alone fill the tank when the leak is closed?

(i) 5 hrs (ii) 8 hrs (iii) 6 hrs (iv) 4 hrs (v) 7 hrs

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Pipe A can fill a tank in 5 hrs and pipe B can empty the full tank in

10. 45 hrs . If both the pipes are opened together,

in how much time will the tank become full?

(i) $5\frac{1}{2}$ hrs (ii) $5\frac{3}{8}$ hrs (iii) $5\frac{5}{6}$ hrs (iv) $5\frac{5}{8}$ hrs (v) $5\frac{7}{8}$ hrs

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## Assignment Key

1) (v)
2) (ii)
3) (i)
4) (iii)
5) (i)
6) (v)
7) (iv)
8) (ii)
9) (iii)
10) (iv)

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