CLAT 2019

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Mathematics Practice on Telegram

No. of Questions: 05 **Time:** 08 Minutes

1. Attempt the MPT timely
2. Check your answers immediately after attempting them
3. 26 MPTs to be given before 26th May

Questions

1. Two pipes A and B can fill a tank in 20 and 30 minutes respectively. If both the pipes are used together, then how long will it take to fill the tank?
   (a) 12 min (b) 15 min
   (c) 25 min (d) 50 min

2. An agent gets a commission of 2.5% on the sales of cloth. If on a certain day, he gets Rs.12.50 as commission, the cloth sold through him on that day is worth
   (a) Rs. 250 (b) Rs. 500
   (c) Rs. 750 (d) Rs. 1250

3. The cost of carpeting a room 18 m long with a carpet 75 cm wide at Rs.4.50 per meter is Rs.810. The breadth of the room is :
   (a) 7 m (b) 7.5 m
   (c) 8 m (d) 8.5 m

4. The population of a town is 198000. It increases by 7% in the 1st year and decreases by 5% in the 2nd year. What is the population of the town at the end of 2 years?
   (a) 211860 (b) 201267
   (c) 222453 (d) 198900

5. If x + y = 20 and xy = 84; what is the value of x^2+y^2?
   (a) 232 (b) 400
   (c) 128 (d) None of these

Explanations

1. Total Tank filled in 1 min $= \frac{1}{20}+\frac{1}{30}=\frac{5}{60}=\frac{1}{12}$
   Time taken to fill the tank$= 12\ minutes$

2. $2.5\% = 12.50$
   $100\ \% = 12.50 * \frac{100}{2.5} = Rs.500$

3. Let the breadth of the room be x. Total area of room $= 18 * x$
   Total Total area of Carpet $= 0.75 * \frac{810}{4.5} = 135$
   Since whole room is covered with carpet.
   Therefore, $18x = 135$
   $x = 7.5\ m$

4. Population after 2 years $= 198000 * \frac{107}{100} * \frac{95}{100} = 201267$

5. We know that, $(x+y)^2 = x^2+y^2+2xy$
   Putting values given, $400 = x^2+y^2+2*84$
   $x^2+y^2 = 400-168 = 232$