

IV Problems Worksheet  
Drip Rates

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## 1 Problems

Round to the nearest tenth.

- 1) A patient is to receive a fluid challenge of 500 mL of normal saline over 2 hours. The administration set has a drip factor of 155 gtt/mL. What should the drip rate be?
- 2) A patient is to receive 1 L of lactated Ringer's solution over 10 hours. A set with a drip factor of 10 gtt/mL is to be used. What should the drip rate be?
- 3) If a child is to receive 30 mL/hr of dextrose 5% in  $\frac{1}{4}$  NS through a minibag delivery set. What should the drip rate be?
- 4) If a patient is to receive 100 mL/hour and the drip factor is 15 gtt/mL, how many drops per minute should the nurse set the administration set to deliver?
- 5) The doctor orders 1 L of normal saline to run over 8 hours. The drip factor is 20 gtt/mL. After 3 hours, the nurse finds 300 mL remain to be infused. What is the drip rate after recalculation?
- 6) Calculate the flow rate of 1000 mL to run in over 8 hrs with a set calibrated at 20 gtt/mL.
- 7) An IV of 1200 mL is ordered to run for 16 hours. Calculate the flow rate if the set is calibrated at 15 gtt/mL?
- 8) An IV of 500 mL was ordered to infuse in 3 hours using a 15 gtt/mL set. With  $\frac{1}{2}$  hours remaining you discover only 150 mL is left in the bag. At what rate will you need to reset the flow.
- 9) An IV of 800 mL was started at 9 a.m. to infuse in 4 hours. At 10 a.m. 150 mL have infused. The set is calibrated at 15 gtt/mL. Recalculate the flow rate in gtt/min.
- 10) An IV of 1000 mL was scheduled to run in 12 hours. After 4 hours only 220 mL have infused. The set calibration is 20 gtt/mL. Recalculate the rate for the remaining solution.



- 11) A doctor orders 100mL of D5NS to infuse at 75mL/hr. Calculate how long the infusion is.
- 12) A patient has an IV of 1000 mL 5% D5W infusing at 90mL/hr. How many hours will it take this IV to complete.
- 13) The doctor orders a volume of 250 mL to be infused at 30 mL per hour. You start the infusion at 12 noon. When will the IV be completed.
- 14) The medication order is for 500mL of 5% D/W to infuse in 5 hours.
  - (a) Calculate the flow rate in drops per minute if the drop factor is 15 drops per mL.
  - (b) When the nurse later checks the infusion, 400 mL remain to be absorbed in 3 hours. Now you must recalculate the flow rate for the remaining 400mL
- 15) The prescriber ordered: 250L 5% D/W IV in 2.5 hr. Calculate the flow rate in mL per hour.
- 16) The prescriber orders: 2500mL 5% D/W in 24hr IV. The drop factor is 10 gtt/mL. What is the flow rate?
- 17) The order reads: 900 mL 5% D/0.45% NS IV 5hr. Calculate the drip rate when the drop factor is 10 gtt/mL
- 18) The order reads: 500mL 5% D/W in 4hr IV. The drop factor is 10 gtt/mL. Calculate the drip rate.
- 19) The order reads: 1000 mL 9% NS to infuse in 8 hours IV. The flow rate is 21 drops per minute. Four hours later, 400 mL remained in the IV bag. Recalculate the drip rate. The drop factor is 15 gtt/mL.
- 20) The Physician ordered 500 mL D/5/0.45% N/S to infuse in 5 hours. One hour later, 300 mL remained. Recalculate the drip rate if the drop factor is 15 gtt/min.



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## 2 Answers/Solutions

- 1) 645.8 gtt/min
- 2) 16.6 gtt/min
- 3) 30 gtt/min
- 4) 25 gtt/min
- 5) 20 gtt/min
- 6) 41.7 gtt/min
- 7) 18.8 gtt/min
- 8) 75 gtt/min
- 9) 54.2 gtt/min
- 10) 32.5 gtt/min
- 11) 1 hours 20 minutes
- 12) 11 hours 7 minutes
- 13) 8 : 20 PM (8h20)
- 14)           (a) 25 gtt/min  
                 (b) 33.3 gtt/min
- 15) 100000 mL/hour
- 16) 17.4 gtt/min
- 17) 30 gtt/min
- 18) 20.8 gtt/min
- 19) 25 gtt/min
- 20) 18.8 gtt/min



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