Dosage calculation worksheet: IV Drip Rate

Name: _____ Date: _____

Round each answer as the problem says. For study and exam practice, not for patient care.

1. A client with hypernatremia-related dehydration is to receive a maintenance hydration fluid. Order: 0.45% sodium chloride 500 mL IV over 1 hour. The IV tubing has a drop factor of 10 gtt/mL. How many gtt/min should the nurse regulate the infusion? Record your answer using a whole number.

Answer: _____

2. The nurse is caring for a client who has an order for 5% dextrose and 0.45% sodium chloride 1,000 mL IV over 4 hours. The IV tubing has a drop factor of 10 gtt/mL. How many gtt/min should the nurse regulate the infusion? Record your answer using a whole number.

Answer: _____

3. A client with dehydration is receiving maintenance fluid therapy on the medical unit. Order: 5% dextrose and 0.45% sodium chloride 1,000 mL IV over 6 hours. The IV tubing has a drop factor of 20 gtt/mL. How many gtt/min should the nurse regulate the infusion? Record your answer using a whole number.

Answer: _____

4. A client with dehydration from vomiting is receiving fluid replacement. Order: 0.9% sodium chloride 500 mL IV over 4 hours. The IV tubing has a drop factor of 10 gtt/mL. How many gtt/min should the nurse regulate the infusion? Record your answer using a whole number.

Answer: _____

5. A client with dehydration needs maintenance fluid replacement. Order: 5% dextrose in water 250 mL IV over 1 hour. The IV tubing has a drop factor of 15 gtt/mL. How many gtt/min should the nurse regulate the infusion? Record your answer using a whole number.

Answer: _____

6. Order: 0.45% sodium chloride 1,000 mL IV over 24 hours. The IV tubing has a drop factor of 20 gtt/mL. How many gtt/min should the nurse regulate the infusion? Record your answer using a whole number.

Answer: _____

7. The nurse is caring for a client who has an order for 5% dextrose and 0.45% sodium chloride 1,000 mL IV over 12 hours. The IV tubing has a drop factor of 15 gtt/mL. How many gtt/min should the nurse regulate the infusion? Record your answer using a whole number.

Answer: _____

8. Order: 0.9% sodium chloride 250 mL IV over 10 hours. The IV tubing has a drop factor of 20 gtt/mL. How many gtt/min should the nurse regulate the infusion? Record your answer using a whole number.

Answer: _____

9. Order: 5% dextrose in water 500 mL IV over 8 hours. The IV tubing has a drop factor of 10 gtt/mL. How many gtt/min should the nurse regulate the infusion? Record your answer using a whole number.

Answer: _____

10. The nurse is caring for a client who has a prescription for lactated Ringer's solution 1,000 mL IV over 1 hour. The IV tubing has a drop factor of 10 gtt/mL. How many gtt/min should the nurse regulate the infusion? Record your answer using a whole number.

Answer: _____

More practice: https://doserightrn.com/worksheets/ and the DoseRightRN app.

Answer key

1. 83 gtt/min

gtt/min = volume × drop factor ÷ minutes.
500 mL × 10 gtt/mL ÷ 60 minutes = 83.33 gtt/min.
A drop cannot be split, so round to a whole number: 83 gtt/min.

2. 42 gtt/min

Minutes = 4 hours × 60 = 240 minutes.
gtt/min = volume × drop factor ÷ minutes.
1,000 mL × 10 gtt/mL ÷ 240 minutes = 41.67 gtt/min.
A drop cannot be split, so round to a whole number: 42 gtt/min.

3. 56 gtt/min

Minutes = 6 hours × 60 = 360 minutes.
gtt/min = volume × drop factor ÷ minutes.
1,000 mL × 20 gtt/mL ÷ 360 minutes = 55.56 gtt/min.
A drop cannot be split, so round to a whole number: 56 gtt/min.

4. 21 gtt/min

Minutes = 4 hours × 60 = 240 minutes.
gtt/min = volume × drop factor ÷ minutes.
500 mL × 10 gtt/mL ÷ 240 minutes = 20.83 gtt/min.
A drop cannot be split, so round to a whole number: 21 gtt/min.

5. 63 gtt/min

gtt/min = volume × drop factor ÷ minutes.
250 mL × 15 gtt/mL ÷ 60 minutes = 62.5 gtt/min.
A drop cannot be split, so round to a whole number: 63 gtt/min.

6. 14 gtt/min

Minutes = 24 hours × 60 = 1,440 minutes.
gtt/min = volume × drop factor ÷ minutes.
1,000 mL × 20 gtt/mL ÷ 1,440 minutes = 13.89 gtt/min.
A drop cannot be split, so round to a whole number: 14 gtt/min.

7. 21 gtt/min

Minutes = 12 hours × 60 = 720 minutes.
gtt/min = volume × drop factor ÷ minutes.
1,000 mL × 15 gtt/mL ÷ 720 minutes = 20.83 gtt/min.
A drop cannot be split, so round to a whole number: 21 gtt/min.

8. 8 gtt/min

Minutes = 10 hours × 60 = 600 minutes.
gtt/min = volume × drop factor ÷ minutes.
250 mL × 20 gtt/mL ÷ 600 minutes = 8.33 gtt/min.
A drop cannot be split, so round to a whole number: 8 gtt/min.

9. 10 gtt/min

Minutes = 8 hours × 60 = 480 minutes.
gtt/min = volume × drop factor ÷ minutes.
500 mL × 10 gtt/mL ÷ 480 minutes = 10.42 gtt/min.
A drop cannot be split, so round to a whole number: 10 gtt/min.

10. 167 gtt/min

gtt/min = volume × drop factor ÷ minutes.
1,000 mL × 10 gtt/mL ÷ 60 minutes = 166.67 gtt/min.
A drop cannot be split, so round to a whole number: 167 gtt/min.