Calculating gtts per minute

- <u>Example 1</u> We have an available IV administration set that delivers 10 gtts/ml. 0.9% NaCl (0.9% Sodium Chloride) has been prescribed to run IV at a rate of 150 ml/1 hr. The IV should infuse at how many gtts/min?

We will find the answer in 5 steps:

     Step 1 – Write down the prescribed rate
     Step 2 – Write down the IV set rate
     Step 3 – Write down the conversion factor
     Step 4 – Reduce the units
     Step 5 – Perform the math

When calculating drops round your answer to the nearest whole number.

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Step 1   Step 2   Step 3   Step 5   Reduce the answer & include the units.

$$\frac{150\ ml}{1\ hour} \times \frac{10\ gtts}{1\ ml} \times \frac{1\ hour}{60\ min} = \frac{150 \times 10 \times 1\ gtts}{1 \times 1 \times 60\ min} = \frac{1500\ gtts}{60\ min} = \frac{25\ gtts}{1\ min}$$

Step 4

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Calculating gtts per minute

- <u>Example 2</u>   350 ml of D5 in Lactated Ringer's (5% Dextrose in Lactated Ringer's Solution) has been prescribed for IV infusion over 1 hr. You are using an IV administration set that delivers 15 gtts/ml.   The IV should infuse at how many gtts/min?

We will find the answer in 5 steps:

Step 1 – Write down the prescribed rate
Step 2 – Write down the IV set rate
Step 3 – Write down the conversion factor
Step 4 – Reduce the units
Step 5 – Perform the math

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Example Two Solution

Calculating gtts per minute

- **Example 2**   350 ml of D5 in Lactated Ringer's (5% Dextrose in Lactated Ringer's Solution) has been prescribed for IV infusion over 1 hr. You are using an IV administration set that delivers 15 gtts/ml.   The IV should infuse at how many gtts/min?

We will find the answer in 5 steps:

Step 1 – Write down the prescribed rate
Step 2 – Write down the IV set rate
Step 3 – Write down the conversion factor
Step 4 – Reduce the units
Step 5 – Perform the math

Round drops to the nearest whole number.
87.5 = 88 gtts/min

Step 1   Step 2   Step 3   Step 5   Reduce the answer & include the units.

$$\frac{350\ ml}{1\ hour} \times \frac{15\ gtts}{1\ ml} \times \frac{1\ hour}{60\ min} = \frac{350 \times 15 \times 1\ gtts}{1 \times 1 \times 60\ min} = \frac{5250\ gtts}{60\ min} = \frac{87.5\ gtts}{1\ min}$$

Step 4

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