University of South Australia

Drops per minute (DPM) - Practice Exercises Answers

Answer 1

Total volume = 550 ml

Total time to administer= 2.5 hours

Drop factor = 20

So, Drops per minute (DPM) =

$$\frac{550}{2.5} \times \frac{20}{60} = \frac{550}{2.5 \times 3} = 73.33 \text{ drops per minute}$$

Answer 2

Total volume = 2.5 L = 2.5 × 1000 = 2500 ml

Total time to administer= 8 hours

Drop factor = 15

So, Drops per minute (DPM) =

$$\frac{2500}{8} \times \frac{15}{60} = \frac{2500}{8 \times 4} = 78.125 \text{ drops per minute}$$

Answer 3

Total volume = 2 L = (2 × 1000) = 2000 ml

Time= 480 minutes = $\frac{480}{60}$ hour $= 8$ hour

Drop factor = 60

So, Drops per minute (DPM) =

$$\frac{2000}{8} \times \frac{60}{60} = \frac{2000}{8} = 250 \text{ drops per minute}$$

Answer 4

Total volume = 1300 ml

Time= 480 minutes = 8 hours

Drop factor = 20

So, Drops per minute (DPM) =

$$\frac{1300}{8} \times \frac{20}{60} = \frac{1300}{8 \times 3} = 54.17 \text{ drops per minute}$$

Answer 5

Total volume = 250 ml

Infusion rate= 10 ml/hr

Drop factor= 20

We can write the DPM formula like this:

Drops per minutes= Infusion rate (ml/hr) $\times \frac{\text{Drop factor}}{60}$

So, DPM=

$$10 \times \frac{20}{60} = \frac{200}{60} = 3.33 \text{ drops per minute}$$

Answer 6

Drop factor = 20

DPM= 70

Volume remaining= 750 ml

So, Time remaining=

$$\frac{750}{70} \times \frac{20}{1} = \frac{15000}{70} = 214.28 \text{ minute}$$

Convert the minutes into hours:

(214.28 ÷ 60) hour = 3.57 hours

Answer 7

Total volume = 2.5 L = 2500 ml

Infusion rate= 125 ml/hr

Drop factor= 20

We can write the DPM formula like this:

Drops per minutes= Infusion rate (ml/hr) $\times \frac{\text{Drop factor}}{60}$

So, DPM=

$$125 \times \frac{20}{60} = \frac{125}{3} = 41.66 \text{ drops per minute}$$

Answer 8

Drop factor = 60

DPM= 90

Volume remaining= 1.2 L = 1200 ml

So, Time remaining=

$$\frac{1200}{90} \times \frac{60}{1} = \frac{2400}{3} = 800 \text{ minute}$$

Convert the minutes into hours:

(800 ÷ 60) hour = 13.33 hours