University of South Australia

Dosage Calculation - Practice Exercise Answers

Answer 1

Stock required: 120 mg

Stock strength: 550 mg/12ml

Volume of stock: 12 mls

$$\text{So, Dosage} = \frac{120\ \text{mg}}{550\ \text{mg}} \times 12\text{mls}$$

= **2.61 mls.**

Answer 2

Stock required (SR): 25 mg

Stock strength (SS): 0.6g/8ml

Volume of stock: 8 ml

Converting the SS amount to mg.

So, SS= 0.6g= 0.6×1000 = 600 mg

$$\text{Dosage} = \frac{25\ \text{mg}}{600\ \text{mg}} \times 8\ \text{ml}$$

= **0.33 ml**

Answer 3

Stock required: 600/2= 300 mg/dose

Stock strength: 150 mg

So, tablet dosage = $\frac{300\text{ mg}}{150\text{ mg}}$

= **2 tablets**

Answer 4

Stock required: 72.5 mg/day;

SR per dose=($\frac{72.5}{3}$)mg/dose= 24.17 mg/dose

Stock strength: 50 mg

Volume: 10 ml

$$\text{Dose} = \left(\frac{\text{Stock required}}{\text{Stock strength}} \times \text{volume}\right)$$

$$\text{Dose} = \left(\frac{24.17}{50} \times 10\right)\ \text{mls} = \ \mathbf{4.834\ mls}$$

Total volume in a day = $(4.834 \times 3)\ \text{mls} = \mathbf{14.502\ mls}$

Answer 5

SR = 25mg/kg/day

The dose is to be given every 8 hours, that is, three times a day.

So, SR per dose=($\frac{25}{3}$)mg/kg/dose= **8.33 mg/kg/dose**

SS = 0.05g/10ml

Converting the SS amount to mg.

So, SS= 0.05g= (0.05 X 1000) mg = 50mg

Child's weight= 22kg

$$\text{Dose} = \left(\frac{\text{Stock required}}{\text{Stock strength}} \times \text{volume}\right) \times \text{Weight}$$

$$\text{Dose} = \frac{8.33}{50} \times 10\ \times 22 = \mathbf{36.65mls}$$

Total dose/day = $(36.65 \times 3)\ \text{mls} = \mathbf{109.96mls}$.