To administer 2% Xylazine:

* Dose: 0.05 mg/kg

$$Volume=\frac{Weight ×Dose}{Concentration}$$

* Concentration: 20 mg/mL
* Weight of Calf #243: 160kg

$$Volume=\frac{160 kg ×0.05 mg/kg}{20 mg/ml}$$

$$Volume=0.4 ml$$

To administer 10% Ketamine:

* Dose: 0.1 mg/kg

$$Volume=\frac{Weight ×Dose}{Concentration}$$

* Concentration: 100 mg/mL
* Weight of Calf #243: 160kg

$$Volume=\frac{160 kg ×0.1 mg/kg}{100 mg/ml}$$

$Volume=0.16 ml$ (0.4mL of ketamine was used)

\* Points to note: both dosages of the drugs above were doubled the normally used dose (xylazine 0.025mg/kg and ketamine 0.05mg/kg). This was done to increase the sedation effect and as such, the animal was expected to go into recumbency. Also, although, ketamine was calculated to be 0.16ml to be used, 0.4mL was used instead. This was recommended by a certified veterinarian. This was done to increase safety precautions during the procedure in addition to increasing the ketamine anaesthetic effect.