Formula

	For 1 suppository	For 10 suppositories
Paracetamol BP	180 mg	1800 mg (1.8 g)
Hard Fat BP	to fill 1 × 1 g mould	to fill 10 × 1 g mould

Displacement value of paracetamol is 1.5.

1.5 g Paracetamol BP displaces 1 g of Hard Fat BP

Therefore 1.0 g Paracetamol BP displaces $\frac{1.0}{1.5}$ g of Hard Fat BP

Therefore 1.8 g Paracetamol BP displaces $\frac{1.8}{1.5}$ g of Hard Fat BP

= 1.2 g Hard Fat BP.

Therefore the amount of Hard Fat BP required = 10 – 1.2 = 8.8 g

Product formula

	10 suppositories
Paracetamol BP	1.8 g
Hard Fat BP	8.8 g

4.

a. Not applicable.
b. Hard Fat BP is being used as the base for this preparation.
c. There is no preservative included as per the product formula.
d. Suppositories are for rectal use and so no flavouring is required.

The following method would be used to prepare paracetamol 180 mg suppositories from the formula above:
Noting that the melting point of Hard Fat BP is 30–45°C (*Martindale* 31st edn, p 1409):

1. Weigh 8.8 g Hard Fat BP on a Class II or electronic balance.
2. Transfer to an evaporating basin and melt over a water bath.
3. Weigh 1.8 g Paracetamol BP on a Class II or electronic balance.
4. Transfer to a glass mortar and grind to reduce particle size.
5. Levigate the Paracetamol BP with a small amount of the molten base on a glass tile.
6. Return to the remainder of the molten base and stir to mix well.
7. Stir until almost set and then pour into a disposable suppository mould and allow to set.
8. Trim the top and seal with the lid.
9. Transfer to a cardboard box and label.

5. Once manufactured, the suppositories should be individually wrapped in foil and placed in an ointment jar. Alternatively, if the suppositories were manufactured in a disposable mould, this could be labelled and dispensed directly to the patient.