

### Answer on Question #82188, Chemistry / General Chemistry

Using the relative atomic masses below, calculate the amounts required to make 200 ml of a buffer containing 10 mM  $\text{KH}_2\text{PO}_4$ .

K = 39; H = 1; P = 31; O = 16

#### Solution

Find molar mass of  $\text{KH}_2\text{PO}_4$ :

$$M(\text{KH}_2\text{PO}_4) = 39 + 2 \times 1 + 31 + 4 \times 16 = 136 \text{ (g/mol)}$$

Find the mass of 10 mM  $\text{KH}_2\text{PO}_4$ :

$$m(\text{KH}_2\text{PO}_4) = 136 \times 0.01 = \mathbf{1.36 \text{ (g)}}$$

#### Answer

**1.36 g** of  $\text{KH}_2\text{PO}_4$  are required to make 200 ml of a buffer containing 10 mM  $\text{KH}_2\text{PO}_4$ .