1. Compute:

$$a) \sum_{i=1}^{7} i \qquad b) \sum_{i=3}^{5} 2i^2$$

2. Write out the sums:

$$a) \sum_{k=1}^{10} \frac{1}{k} \qquad b) \sum_{k=1}^{5} k\sqrt{k-1}$$

3. Decide whether the following identities are true or false. Explain your answers

$$a) \sum_{i=1}^{n} (a_i + b_i) = \sum_{i=1}^{n} a_i + \sum_{i=1}^{n} b_i$$
$$b) \sum_{i=1}^{n} a_i bi = \left(\sum_{i=1}^{n} a_i\right)\left(\sum_{i=1} b_i\right)$$
$$c) \sum_{i=1}^{n} (ca_i) = c\left(\sum_{i=1}^{n} a_i\right)$$