Worksheet 1

Name Class Date

**1** Complete these unit conversions. Give all answers to 3 significant figures.

**a** 30.0 cm3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dm3

**b** 0.200 dm3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cm3

**c** 250 cm3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dm3

**d** 20.0 cm3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dm3

**e** 0.500 dm3 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cm3

**2** Place the following solutions so that they are in the correct order of increasing concentration.

Start with the most dilute solution first and place the most concentrated solution last.

**A** 3 dm3 containing 9 moles

**B** 2 dm3 containing 0.2 moles

**C** 2 dm3 containing 5 moles

**D** 1 dm3 containing 4 moles

**E** 7 dm3 containing 3.5 moles

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**3** Calculate the concentration of the following solutions. Give all answers to 3 significant figures.

**a** 0.5 moles in 3 dm3 of solution = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mol/dm3

**b** 3 moles in 200 cm3 of solution = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mol/dm3

**c** 0.25 moles in 0.03 dm3 of solution = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mol/dm3

**d** 4.21 moles in 991 cm3 solution = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mol/dm3

**e** 0.08 moles in 58 cm3 of solution = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mol/dm3

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