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| **Topic 1: Number and Algebra** | **Scientific Notation** | |
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| 1. A mold to create a chocolate sphere has a radius of 11.94 cm.    1. Jennifer was making a solid chocolate ball with this mold. Find the volume of the ball, expressing your answer in the form of and .    2. Jennifer gave the chocolate ball to her friend Amy. She decided to melt it down and turn it into a cone. The height of the cone would be 12.5 cm. Find the radius of the base of the cone, correct to 2 significant figures. | | (3 marks)  (3 marks) |
| Mark scheme:    2. Recognizing that the volume of the cone equals the volume of the ball   \*\* This question could also be used in Topic 3 Geometry and Trigonometry. | | (M1)  (A1)  (A1)    (M1)  (A1)    (A1) |