Practice worksheet | Surface area, volume and measurement

Multi-step measurement problems

Name: _____ Date: _____

6 questions | 18 marks

1. An open-top box is 1 m long, 0.6 m wide and 0.4 m high. Find its material area, ignoring thickness. [3 marks]

2. A cylinder has internal radius 0.4 m and height 1 m. Find its capacity to one decimal place. [3 marks]

3. A solid consists of a 5 cm by 4 cm by 3 cm prism with a complete cylinder of radius 1 cm and height 2 cm fixed on top. The solids do not overlap. Find the total volume. [3 marks]

4. Each closed box is 20 cm by 10 cm by 5 cm. Find the total cardboard area for 500 boxes in square metres, ignoring joins and waste. [3 marks]

5. A rectangular tank is 80 cm by 50 cm by 40 cm internally. How many litres does it hold when three-quarters full? [3 marks]

6. A closed cylindrical container has radius 2 m and height 3 m. Painting costs 4 dollars per square metre. Find the cost to the nearest cent, ignoring waste. [3 marks]