Practice worksheet | Measurement and scale

Practical design models

Name: _____ Date: _____

6 questions | 14 marks

1. Cut 2 cm squares from a 24 by 18 cm card. Find folded tray volume. [2 marks]

2. A box measures 40 by 25 by 12 cm internally. Find capacity. [2 marks]

3. A cylinder has internal radius 1 m and usable height 1.5 m. Give exact litre capacity. [2 marks]

4. Compare closed boxes 10 by 10 by 20 cm and 10 by 5 by 40 cm. Both hold 2000 cm^3. Which uses less material? [3 marks]

5. A design needs 2.4 m^2 plus 10% waste. Material costs 18 dollars per m^2. Find the continuous-area cost. [2 marks]

6. A model uses outside dimensions but ignores 3 mm walls. Does it overestimate or underestimate usable capacity? Explain. [3 marks]