Answers

- 1) a)  $4 \times 2 = 8 cm^2$ 
  - b)  $5 \times 3 = 15 cm^2$
- 2) a)  $14cm \times 6cm = 84cm^2$ 
  - b)  $7 cm \times 5 cm = 35 cm^2$
- 3) a) 80mm
  - b) 7cm
- 1) Ania is incorrect. Using the formula base × perpendicular height to calculate the area of both the rectangle and the parallelogram will show Ania that both shapes actually have the same area of 32cm<sup>2</sup>.
- 2) No. Although Hamish has correctly calculated that the first parallelogram has an area of 42cm<sup>2</sup>, in the second parallelogram he has multiplied the base by a side length, rather than the perpendicular height. The correct area of the second parallelogram is 7cm × 5cm = 35cm<sup>2</sup> so both of these parallelograms do not have an area of 42cm<sup>2</sup>.
- 1) The parallelogram has an area of 84cm<sup>2</sup> so it could have the following dimensions:
  - base = b and height = h b = 3cm and h = 28cm b = 4cm and h = 21cm b = 6cm and h = 14cm b = 7cm and h = 12cm
  - a) Each tile has an area of 240cm<sup>2</sup>.
     4800 ÷ 240 = 20
     DIY Dan needs 20 tiles for this wall.
  - b) £175 ÷ £3.50 = 50
    Dan used 50 more tiles to decorate the rest of his bathroom.







