



Gordon Burgin's Puzzles

June 2022 challenge

1. A solid cube of 6-unit sides is first painted pink and then cut into smaller cubes of 1-unit sides. How many of the smaller cubes have paint on exactly 2 sides?
2. Ann and Dee are sisters. Ann is 4 years old and Dee is 13 years old. What ages will each be when Dee is twice as old as Ann?
3. In the figure below, the radius of circle B is three-fourths the radius of circle A. The distance from centre A to the circumference of circle B is 3, and the distance from centre B to the circumference of circle A is 2. What is the area of the smaller circle? (Note: Use $\pi = 3.14$)

