

Use your squares

Squaring a number is multiplying it by itself, for example 12 squared or $12^2 = 12 \times 12 = 144$. When squaring multiples of 10, make sure that the number of zeros in the answer matches the number of zeros in the question, for example 60×60 has two zeros, so there must be two zeros in the answer: $60 \times 60 = 3600$.

Use your knowledge of square numbers to help you solve these problems.

1. Rashid says: " $12 \times 12 = 144$, so 12×13 must equal 157."
 - a. Is he correct? _____
 - b. Explain your reasoning. _____

2. Mr Smith's garden measures 49m by 52m.
 - a. What is the garden's approximate area? _____
 - b. Explain how you worked this out. _____

3. Molly says: "To find the answer to 70^2 , you multiply 7×7 , then add the zero. The answer is 490."
 - a. Is she correct? _____
 - b. Explain your answer. _____

4. What number multiplied by itself gives the answer 6400? _____

5. Sunnyville School's playground measures 40m by 40m. A space measuring 18m by 22m is marked out for ball games. Approximately how much space is left for other types of games? Show your workings.

