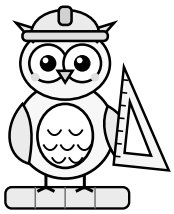
Name : _____ Date : _____

PAPILUMO / 4th Grade (ages 9–10)

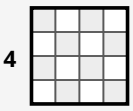
Square Roots & Tiled Squares

Find the side of each tiled square, verify side × side = area, then evaluate all six square roots.



Sacha the architect owl designs square tiled courtyards.
Help him work out the side length of every square!

Example: a 4 × 4 square courtyard has 16 tiles, so its side length is 4.

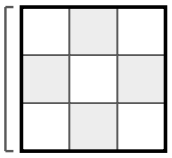


Area = 16 tiles → **side = 4** $\sqrt{16} = 4$ (because 4 × 4 = 16)

1. Find the side of each tiled square and verify: side × side = area

A **Area = 9 tiles**

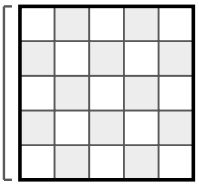
side = ?



□ × □ = 9

B **Area = 25 tiles**

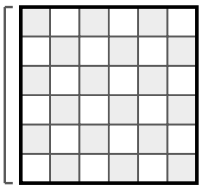
side = ?



□ × □ = 25

C **Area = 36 tiles**

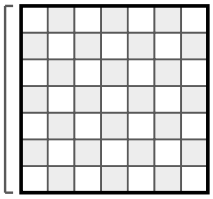
side = ?



□ × □ = 36

D **Area = 49 tiles**

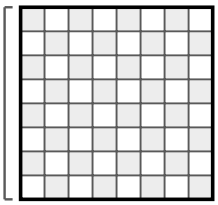
side = ?



□ × □ = 49

E **Area = 64 tiles**

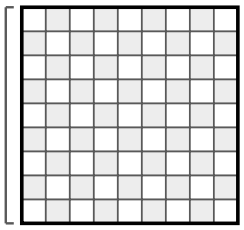
side = ?



□ × □ = 64

F **Area = 81 tiles**

side = ?



□ × □ = 81

2. Evaluate these six square roots directly

1. $\sqrt{4}$ = □
2. $\sqrt{100}$ = □
3. $\sqrt{121}$ = □
4. $\sqrt{144}$ = □
5. $\sqrt{1}$ = □
6. $\sqrt{81}$ = □

Architect tip: finding a square root means asking which whole number multiplied by itself gives that square area.