

Pythagoras investigation - Tilted Squares (nrich)

Starter

1. **(Review of last lesson)** Estimate the cost of 9.7 m of material at £8.19 per metre.

Working: Cost of material = $9.7 \times 8.19 \approx 10 \times 8 = \text{£}80$

- 2*. **(Review of last lesson)** Jim bought 231 feet of decking timber. This was in planks 5'11" (5 feet 11 inches) long. Approximately how many planks did Jim buy?

Working: $231' \div 5'11'' \approx 240 \div 6 = 40$ planks

- 3*. **(Review of last lesson)** The formula for the volume of a pyramid is

$V = \frac{1}{3} \times \text{base area} \times \text{height}$. Find an approximation for the volume of a pyramid which has a rectangular base, measuring 81.2 mm and 58.6 mm, and height 19.7 mm.

Working: Volume = $\frac{1}{3}(81.2 \times 58.6) \times 19.7 \approx \frac{1}{3}(80 \times 60) \times 20 = 32000 \text{ mm}^3$

Exercise

Do the [Tilted Squares](#) investigation or p47 Ex 3.1

[Solutions to Starter and E.g.s](#)

[Textbook answers \(only available during a lockdown\)](#)