Use the Pythagorean theorem to check a ramp length

Grade 8 mathematics | Guided notes and practice



Goal and model

Use the Pythagorean theorem to find a missing right-triangle length and judge whether a fictional ramp board is long enough. ***Model:*** For legs 6 ft and 8 ft: $c^2 = 6^2 + 8^2 = 36 + 64 = 100$, so $c = 10$ ft. Length is positive.

Vocabulary

Vocabulary	Meaning
leg	one of the two sides forming the right angle
hypotenuse	side opposite the right angle
square root	positive length whose square equals the number

Guided start

Step 1. For Plan A, identify the hypotenuse and write the Pythagorean equation.