

Correct. Two adjacent sides of the square form the legs of a right triangle ($a = 2$ and $b = 4$) where the diagonal of the square is the hypotenuse of the triangle. Letting the hypotenuse equal c , the Pythagorean Theorem says that $c^2 = a^2 + b^2 = 2^2 + 4^2 = 4 + 16 = 20$, so $c = \sqrt{20}$.