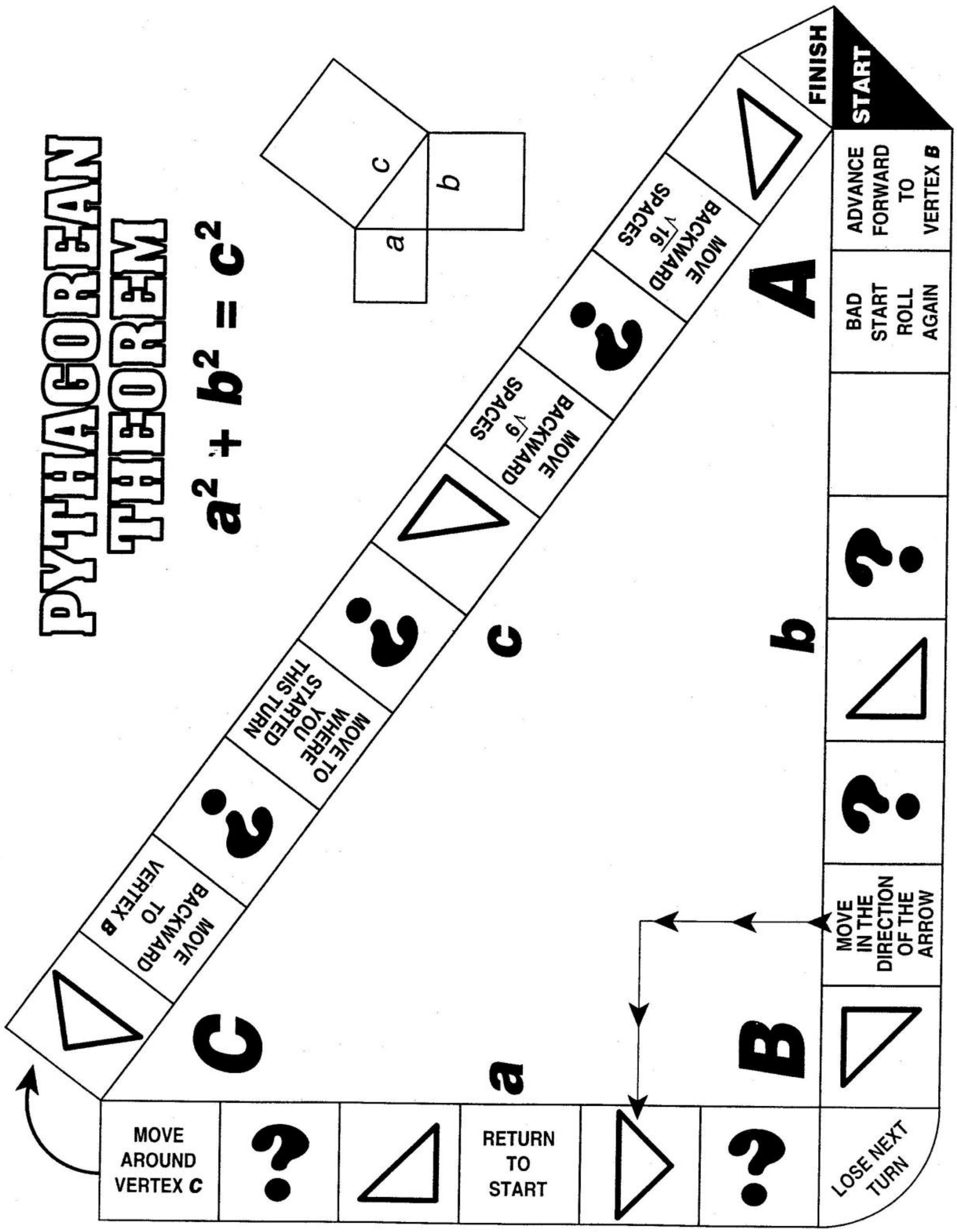

From the *Mathematics Teacher,* December 1995

QUESTIONS FOR THE "?" CARDS

Find the missing member of the Pythagorean triple (7, _____, 25). ***Answer:*** 24	What is the length of the legs in a 45°-45°-90° right triangle with hypotenuse of length $\sqrt{2}$? ***Answer:*** 1	True or false? The Egyptians used the right triangle for land measurement. ***Answer:*** true
Is (8, 15, 17) a Pythagorean triple? ***Answer:*** yes	Find the length of the hypotenuse of a right triangle if the legs have lengths 1 and 2. ***Answer:*** $\sqrt{5}$	Solve the equation $a^2 + b^2 = c^2$ for c. ***Answer:*** $c = \sqrt{a^2 + b^2}$
What is the measure of the two nonright angles in an isosceles right triangle? ***Answer:*** 45° and 45°	Using $a^2 + b^2 = c^2$, find b if $c = 10$ and $a = 6$. ***Answer:*** $b = 8$	A number that is the square of a whole number is called a _____ square. ***Answer:*** perfect
Solve the equation $a^2 + b^2 = c^2$ for a. ***Answer:*** $a = \sqrt{c^2 + b^2}$	What is the length of the diagonal of a rectangle with sides of lengths 5 and 12? ***Answer:*** 13	Is it true that if $a^2 + b^2 = c^2$, then $\frac{a^2}{c^2} + \frac{b^2}{c^2} = 1$? ***Answer:*** yes
True or false? Pythagoras lived circa A.D. 500. ***Answer:*** false (500 B.C.)	Have the person to your left pick two numbers for the legs of a right triangle. Compute the hypotenuse.	Is (16, 20, 25) a Pythagorean triple? ***Answer:*** no
Can an isosceles triangle be a right triangle? ***Answer:*** yes	Pythagoras was of what nationality? ***Answer:*** Greek	Explain to the rest of the players how a right triangle can be found in each game piece.
Is (7, 8, 11) a Pythagorean triple? ***Answer:*** no	How do you spell Pythagoras?	The Pythagorean theorem is applicable for what type of triangle? ***Answer:*** a right triangle

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QUESTIONS FOR THE "?" CARDS

What are the lengths of the legs of a 30°-60°-90° triangle with a hypotenuse of length 10? ***Answer:*** 5 and $5\sqrt{3}$	If you hiked 3 km west and then 4 km north, how far are you from your starting point? ***Answer:*** 5 km	The length of the hypotenuse of a 45°-45°-90° triangle is $10\sqrt{2}$. What are the lengths of the legs? ***Answer:*** 10
The square of the _____ of a right triangle equals the sum of the squares of the lengths of the two legs. ***Answer:*** hypotenuse	If the lengths of the legs of a 30°-60°-90° triangle are 8 and $8\sqrt{3}$, what is the length of the hypotenuse? ***Answer:*** 16	If the lengths of a leg and the hypotenuse of a right triangle are 5 and 10, respectively, what is the length of the other leg? ***Answer:*** $5\sqrt{3}$
Find the length of the diagonal of a square to the nearest hundredth if the square's area is 81 cm^2. ***Answer:*** 12.72 cm	If the lengths of the legs of a 45°-45°-90° triangle are 5, what is the length of the hypotenuse? ***Answer:*** $5\sqrt{2}$	If the diagonal of a square has length 8, what is the length of a side? ***Answer:*** $4\sqrt{2}$

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