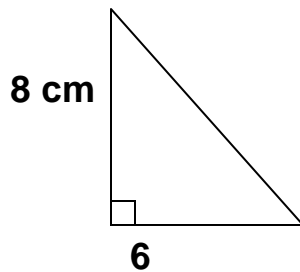


PROBLEM-OF-THE-DAY: ALGEBRA 1**WEEK:** January 22 to January 25**DAY:** Friday

RISD Objective: Provided the lengths of the legs of a right triangle (including word problems), students will use the Pythagorean Theorem to find the length of the hypotenuse, applying it as necessary.

PROBLEM #90

Find the perimeter of this right triangle. Round your answer to the nearest tenth if necessary.



MODEL SOLUTION #90

We will use the Pythagorean Theorem to find the missing side measure.

Pythagorean Theorem:

$$\text{leg}^2 + \text{leg}^2 = \text{hyp}^2$$

$$6^2 + 8^2 = h^2 \text{ Replace values}$$

$$36 + 64 = h^2 \text{ Square values}$$

$$100 = h^2 \text{ Add values}$$

$$\sqrt{100} = h \text{ square root both sides}$$

$$10 = h$$

Now add the 3 sides together to find the perimeter: $6 + 8 + 10 = 24$

So the perimeter is 24 cm.