

Pennsylvania Grade 8 Open Response Sample Test

Standards Categories 2.2 , 2.4 , 2.5, and 2.8

1. Your school is selling two different types of coupon books for the fall fund-raiser. The small coupon book sells for \$10.00. The large coupon book sells for \$35.00.

A. Your school sold a total of 500 coupon books. The total sales were \$7500. How many of each type of book were sold?

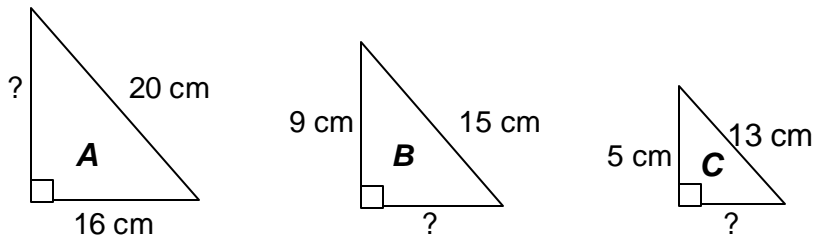
B. Your school made a 15% profit on the total sales of the small coupon books and a 25% profit on the total sales of the large coupon books. How much money did your school earn as profit from the fund-raiser?

Correlation: Course 3 Lesson 8-2

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Standards Categories 2.9, 2.10, and 2.5

2. Ken drew three right triangles. Two of the triangles are similar.



A. Find the missing side lengths. Which two triangles are similar?

B. Ken needs to draw another right triangle whose hypotenuse measures 30 cm and is similar to the other two similar triangles. Find the lengths of the two legs of this new triangle?

Correlation: Course 3, Lessons 6-3 and 7-6

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Standards Categories 2.3 and 2.5

3. Megan wants to build a rectangular swimming pool that has a depth of 6 feet and a perimeter of 36 feet.

A. Using whole numbers, list all the possible dimensions (length and width) for Megan's swimming pool.

B. If Megan decides to reduce the depth of the pool by $\frac{1}{2}$, how will the volume of the pool change?

Correlation: Course 3, Lessons 6-1 and 6-6