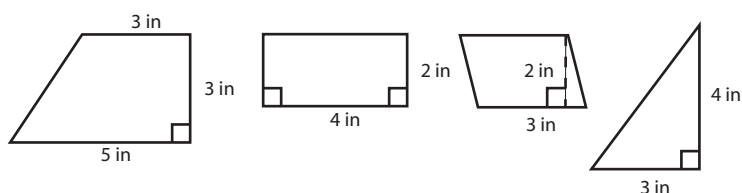


- Bake Sale

Four friends, Art, Roger, Paul and Trisha, bake cookies, and all cookies have the same thickness. The shapes of the cookies differ, as shown.

- Art's cookies are trapezoids:
- Roger's cookies are rectangles:
- Paul's cookies are parallelograms:
- Trisha's cookies are triangles:



Each friend uses the same amount of dough, and Art makes exactly 12 cookies.

Art's cookies sell for 60 ¢ each. To earn the same amount from a single batch, how much should one of Roger's cookies cost?

- (A) 18 ¢ (B) 25 ¢ (C) 40 ¢ (D) 75 ¢ (E) 90 ¢

2003 AMC 8, Problem #9— “How much should Roger spend on his entire batch of cookies?”

- Solution

(C) Art's 12 cookies sell for $12 \times \$0.60 = \7.20 . Roger's 18 cookies should cost $\$7.20 \div 18 = \0.40 each.

OR

The trapezoid's area is 12 in^2 and the rectangle's area is 8 in^2 . So the cost of a rectangle cookie should be $(\frac{8}{12}) 60\text{¢} = 40\text{¢}$.

Difficulty: Medium

NCTM Standard: Number and Operations Standard: Understand numbers, ways of representing numbers, relationships among numbers, and number systems

Mathworld.com Classification: Applied Mathematics > Business > Economics > Marginal Analysis