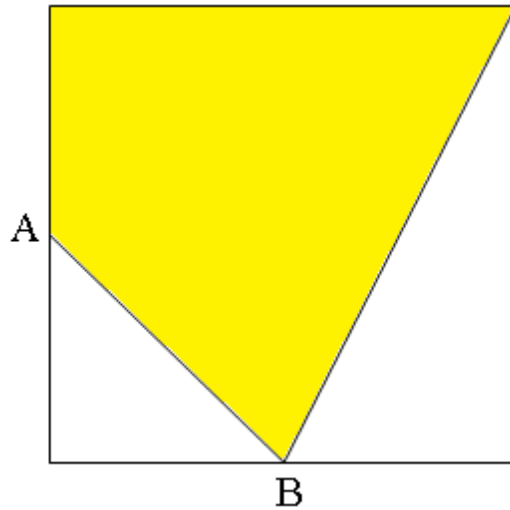


The Gold Bullion Problem



Suppose the square piece of gold shown here is worth \$1000. Point A and point B are the midpoints of adjacent sides of the square. What would be the value of the shaded part?

[Source: *Mathematics Teaching in the Middle School*, volume 10, number 3, October 2004]

If we divide the square in half horizontally and vertically, each quarter would be worth \$250. The top left quarter is all gold (\$250). The bottom left quarter is half gold (\$125). The two quarters on the right side total half gold, half not, for a total of \$250.

All together, the gold portion totals \$625.

There are other ways to divide the square accurately.

