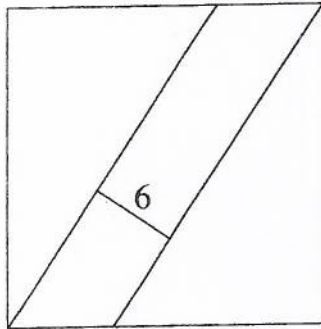


November 2008

A Trisected Square

Problem provided by Daryl Schwerdtfeger, Oklahoma City

A square is divided into three pieces of equal area by two parallel cuts, as shown. The distance between the parallel lines is 6 inches. What is the area of the square in square inches?



The Problem Solving Competition uses problems submitted by professors and students for the monthly mail-out. If problems are submitted from your college by a professor and student, and if the student problem is used in the competition, your math department will receive FREE as a prize, a beautiful silver medallion plaque. Send your original problem statements, and sketches to Dr. Richard Neal *The Problem Solving Competition*, Department of Mathematics, Box 60434, Oklahoma City, OK 73146. This activity is sponsored by The American Society for Mathematics (*ASFM*).

November 2008

An Infinite Sum

Find the exact value of

$$\sum_{k=1}^{\infty} \frac{k^2}{7^k}.$$

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