Math Matters

Apply It.

The Math behind STOPPING and PREVENTING FIRES…

Math that's used to prevent fires:

Mathematical models, and large-scale computation.

Uses and Applications:

Planning efficient fire exits, predicting and preventing the spread of fires, and constructing fire-safe buildings.

How it works:

Mathematicians model the surfaces that are burning, factoring in things like air currents, the 3-d environment, combustible materials, and moisture content. This helps firefighters predict the motion of the fire. For example, they use these models to make recommendations for fire safety and fire exits in buildings.

Interesting Fact:

The National Institute of Standards and Technology's (NIST) Building and Fire Research Laboratory has developed a "virtual reality training tool for firefighters" that will enable fire professionals to demonstrate how life-threatening conditions can develop in structures and to test fire-fighter tactics on computers without risking lives. (See *http://www.bfrl.nist.gov/)*