

Why is there

$$\frac{8! \cdot 3^8 \cdot 12! \cdot 2^{12}}{3 \cdot 2 \cdot 2}$$

=

43252003274489856000

combinations of

Rubik's cube?

If you are curious,
take Math 415/CS 415
in Fall 2009.

<http://www.ms.uky.edu/~jrge/415/>