How do humanity benefit from solving mathematical problems?

There are a lot of unsettled mathematical problems which we are trying to solve now. In fact, it is no matter will we conquer them or not, anyway, we benefit even from our efforts. First of all, while researchers trying to prove something he is discovering new methods and principals which are, probably, not enough to solve the original task, but they could be sufficiently to solve a lot of more simple problems. For example, Poincare working on Three bodies problem developed such methods and principals which are today recognized and applied in practical astronomy. Secondly, there are a lot of problems which were solved in the distant past which directs us to the unknown future and get practical use hundred years later. For example, one the greatest mathematician Lobachevsky developed new kind of geometry, he formulated the fifth Euclid's postulate anew. Unfortunately, his work were criticized and had no way to use. Mathematicians often solve problems not for practical use but for realm of pure thought, they do it to test the temper of their steel. However, their work always effects to branches of deferent sciences and eventually change our life better way.