

Ideas in Mathematics
Math 170, Spring 2016
Quiz 8

When you add two positive numbers you usually get a larger number. However, consider the following. Right now the time is almost 1 o'clock. In 100 hours, the time will be almost 5 o'clock. Should we conclude that $1 + 100 = 5$?

Can you think of any examples from your everyday life in which prime numbers are useful?

Imagine the year is 1776 and you have a friend to whom you'd like to send a secret message. You're nervous that a messenger might look at the secret message, so you want to encode it. But now you're stuck, since you have no way to tell your friend how to decode your message – if you send another message with decoding instructions, perhaps the messenger will see that message as well. Suggest a way in which you might solve this problem. As you might know, secure communication is a very practical problem in the age of information.
