

Please put away all electronic devices. This sheet will be collected but not assessed. The professor will look at the second page but will ignore the first page.

Positive communication (adapted from *The Resilience Project* at Wofford). We might assume that in communications with others, a 1:1 ratio of positive and negative statements is “good” or “fair.” Research by Fredrickson and Losada (2005) contradicts this assumption, showing that relationships that flourish show a positivity bias, surpassing a positivity ratio of around 3 to 1. That is, on average, people need to receive at least three positive utterances, such as support, encouragement, or appreciation, for every negative one, such as disapproval, sarcasm, or cynicism.

Think about a relationship in your life that you would like to see flourish more. It could be a family relationship, a friendship, a professional relationship, or anything else. State the relationship and explain what about it could flourish more.

Brainstorm three positive utterances you could make to the other person.

1. _____

2. _____

3. _____

Plan a way to express the items above. This might depend on whether you interact with the other person routinely, whether they are geographically proximate, and so forth. For instance, you could say “I’m going to video chat with this person sometime this weekend.”

Write this machine number as a base-10 number:

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1 | 10000000101 | 1001000100000000000000000000000000000000000000000
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Answer:

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You've seen that computations can suffer from loss of significance (with the "most dangerous" operation being subtraction of nearly equal numbers). Well unfortunately, we need to calculate what we need to calculate! If your calculation ends up involving subtraction of nearly equal numbers, what is the strategy for trying to avoid loss of significance? Here, I'm looking for a verbal explanation of a general strategy, *not* specific mathematical statements.
