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Previous research have linked different cognitive processes, motivational-affective factors and learning strategies on math performance. However, we have little understanding about their interactions, and how much each can predict math performance in an integrated model. The present study address this question from a cognitive process-oriented approach. The sample was 589 university students (Female: 47.5%), between 18 and 25 years old, attending their first year in different disciplines. Several instruments were applied: Attention Network Test, Automated Operation Span, Mathematics Test, On-line Motivation Questionnaire, and a Learning Strategies Questionnaire. In a hierarchical multiple regression predicting Math Performance, working memory capacity (WMC) was entered in Step 1 and found to be a significant predictor (β= .213, p< .001, R^2=.126); executive attention (EA) added a significant but small portion of variance (β=-.044, p< .001, *part r*= -.161; p< .001; R^2=.026); subjective competence, perceived effort and self-assessment explained a significant portion above and beyond of cognitive processes (R^2= .251); and finally learning strategies related to the use of support resources to learn or retain information added a very small portion of variance (β=-.230, p< .01, part r=-.092; p<.05; R^2= 019). The overall model explained 40% of the total variance in Math Performance. Results revealed that those students with more cognitive resources (specifically working memory) performed better in Math Performance, but the motivational beliefs moderated this effect. This study shows a relative independence between WMC and EA as are measured by complex span test and attentional network test, two highly correlated constructs in the literature. Recommendations: Future research should consider metacognitive regulation measures related to the demands of math problem solving, preferably on-line. In addition, the interaction of students' cognitive profile with item complexity could be analyzed in more comprehensive structural models.