

*“The greatest danger for most of us is not that our aim is too high and we miss it, but that it is too low and we reach it.”*



Michelangelo (1475-1564)

# Levels of Cognitive Demand in Mathematics

1. **Generalize** – make and prove conjectures, prove statements generate questions
2. **Make Connections** – transfer knowledge, connect two or more concepts to solve non-routine problems
3. **Understand Concepts** – communicate “big ideas”, justify and explain solutions to problems, use multiple representations to model mathematical ideas, select the most appropriate representation for given situations
4. **Perform Procedures** – do computations, make observations, measure and compare, solve routine problems
5. **Memorize** – recall facts, definitions, formulas, properties, rules