

# WHAT DO YOU WANT ON IT? STATISTICS, MODELING, AND PIZZA

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# Purpose

- We will explore a 6<sup>th</sup>-grade task promoting modeling with mathematics and addressing several content standards found in the 6.SP cluster.
- We will explore how modeling with mathematics may be integrated into your classroom instruction.

# Modeling with mathematics

- Take 5 minutes and jot down notes about the following questions related to the Standard for Mathematical Practice (SMP) #4: Modeling with Mathematics.
  - What are observable behaviors indicative of a student expressing this SMP?
  - What are observable behaviors indicative of a teacher fostering this SMP?
  - What makes a modeling with mathematics tasks different from a word problem or exercise?

# Elements of SMP 4

- A. Encourage student use of developmentally and content-appropriate mathematical models (e.g., variables, equations, coordinate grids) and foster translations between representations while problem solving.
- B. Remind students that a mathematical model used to represent a problem's solution is 'a work in progress,' and may be revised as needed
- C. Employ problems arising from everyday life, the local community, society, and workplace such that the solution is a model to reuse.
- NOTE: Must have C to be considered a task embedded within instruction promoting modeling with mathematics.
- D. Engage students in oral and written communication of their models to others.

# What do you want on it?

Pizza Hut



Papa Johns



Hungry Howie's



Domino's

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# Thoughts for integrating SMP 4 into your instruction

- Prepare students to collaborate and persevere.
- Plan for multiple days of instruction. Allow adequate think time.
- Formatively assess students' progress, focusing on model construction (strategy) and not necessarily a solution.
- What problems arise from the world, businesses, or local communities?



# Take Care

Thank you for attending our session.  
Enjoy your 2015 NCTM experience!

Feel free to contact us for more information

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