Getting the Most out of Homework: Strategies for Success

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Guiding Principles:

- Homework should give students opportunities to think about mathematics
- Be clear about goals and expectations for homework

Strategies (Habits of Practice):

- Habit of Practice 1: Create assignments that require thinking about mathematics
 - Give students example answers to critique
 - Have students create problems with particular features

• Habit of Practice 2:

Encourage Metacognition

- Have students evaluate their performance/indicate problem difficulty
- Have students explain what strategy they used when they got stuck
- Give students choice based on self-evaluation

• Habit of Practice 3:

Teach explicit strategies for success

- Name successful HW Strategies
 - Use examples from notes or textbook when you are confused or stuck
 - Try a problem, leave it, come back later
 - Identify exactly what you are confused about, and make a question
 - Get help from others (i.e. ask question from previous step)
- Model strategies in class
- Give students time to practice strategies in class
- Assign HW buddies

• Habit of Practice 4:

Create structures and routines

- Choosing what HW to discuss
- Responding to student questions

Excerpt from a "Typical Homework"

Solve these systems of equations

1.
$$2x + 3y = 30$$

 $5x - 3y = 12$ 2. $y = 3x - 8$
 $2y - 5x = -8$ 3. $3x + 2y = 14$
 $5x + 7y = 16$