

# MAC-CPTM Situations Project

## *Situation 20: Area of Plane Figures*

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### **Prompt**

A teacher in a college preparatory geometry class defines the following formulas for areas of plane figures—the area of a triangle, square, rectangle, parallelogram, trapezoid, and rhombus. She removes the formulas from the overhead and poses several problems to the class of students, having students volunteer when they have the answer. One student seems to be particularly good at getting the answers correct but numerous other students struggle. Finally, a disgruntled student asks audibly to the whole class, “Man how did you [the student getting the correct answers] memorize those formulas so fast?” The other student responds, “I didn’t memorize the formulas. I can just see what the area should be.”

*What ideas or focal points might the teacher use to capitalize on this interchange between students?*

### **Commentary**

#### **Mathematical Foci**

*Mathematical Focus 1*

*Mathematical Focus 2*

*Mathematical Focus 3*

*Mathematical Focus 4*