

**Problem 1.** Suppose *distinct* integers  $a$ ,  $b$ ,  $c$ , and  $d$  are chosen between 1 and 9 inclusive. What is the largest *integer* that  $\frac{a+b}{c+d}$  can be? (Remark: “Distinct” means that no two are the same.)

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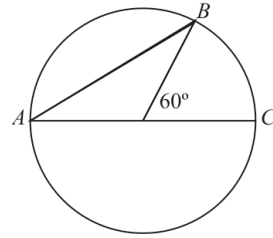
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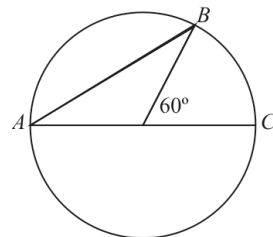
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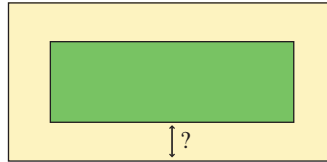
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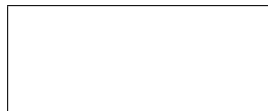
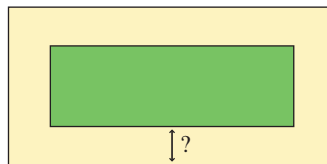
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**Problem 9.** Mildred prefers her brownies from the center of the pan, and Millicent prefers them from around the edge. If they bake a  $9 \times 12$  pan of brownies, how far from the edges of the pan should they cut so that each get equal areas of brownies?



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**Problem 10.** The number

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(where this is a base 9 numeral) is a perfect square. What must the last digit be?

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