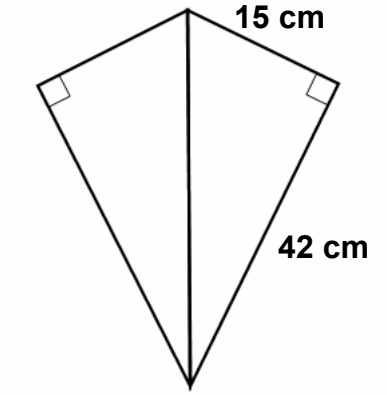
Broward County Council of Teachers of Mathematics
5th Grade Team Competition 2008

1.) Find the area of the kite below.



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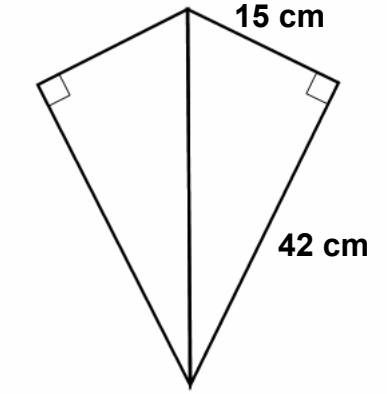

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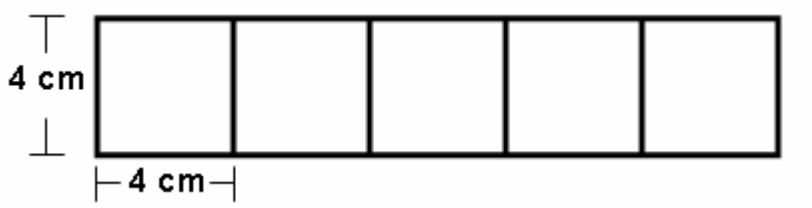
2.) How many rectangles are there in the figure below? (All angles are right angles)



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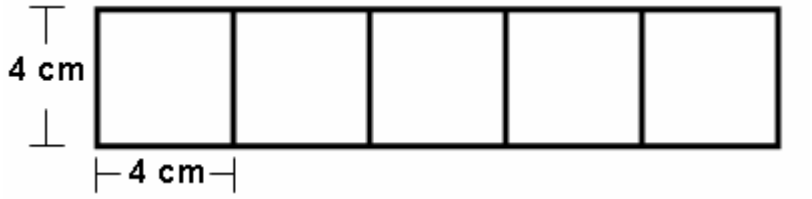

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3.) Find the sum of all the whole numbers greater than 1 and less than 10 that have an odd number of factors.

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4.) In a drawer there are hundreds of blue, black, and brown socks. Assuming you cannot see inside the drawer what is the minimum number of socks you have to select to guarantee a pair of the same color?

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5.) Miriam has 8 red socks, 10 blue socks, and 13 green socks in a drawer. *Without looking* Miriam reaches into the drawer and picks out a red sock and puts it on her left foot. She reaches in again, *without looking*, and picks out a blue sock; she throws the blue sock back in the drawer. She reaches in again *without looking,* what is the probability the sock she picks is red?

(Represent your answer as a fraction in simplest form)

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6.) Evaluate: $\dfrac{\frac{1}{3}+1}{2+\frac{2}{5}}$. Answer should be given in simplified fraction form.

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7.) James picked the following numbers from a hat: 7, 18, 21, 12, and 7, what is the sum of the median and mode of the numbers picked?

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8.) A recipe for 30 cookies calls for $\frac{3}{4}$ cups of sugar. How many cups of sugar will be needed to make $7\frac{1}{2}$ dozen cookies?

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