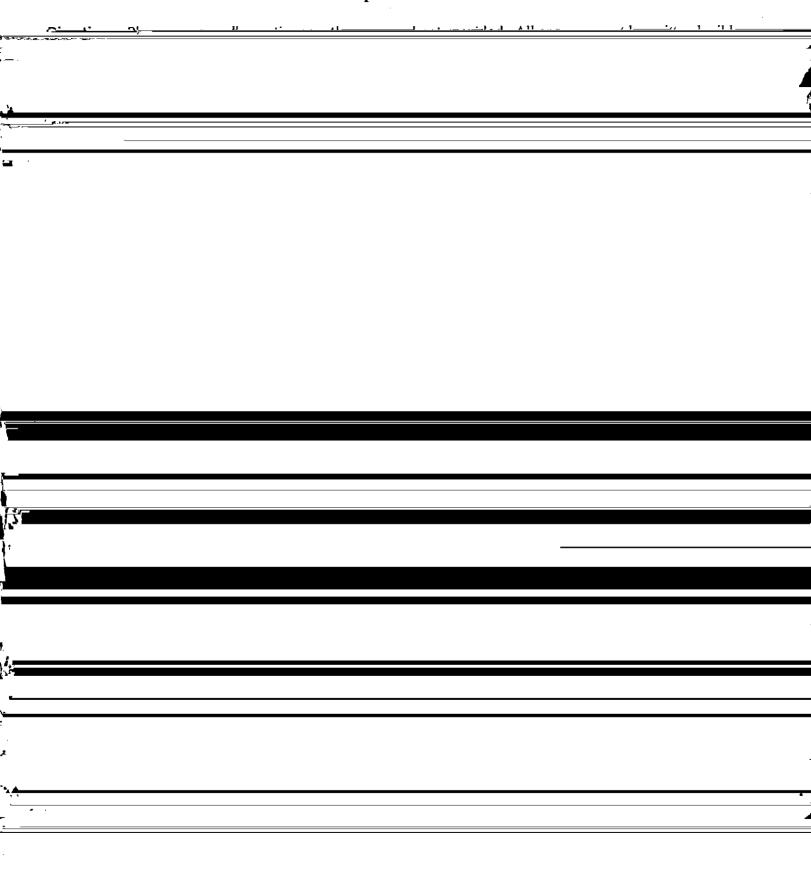
2012 John O'Bryan Mathematical Competition Freshman-Sophomore Individual Test



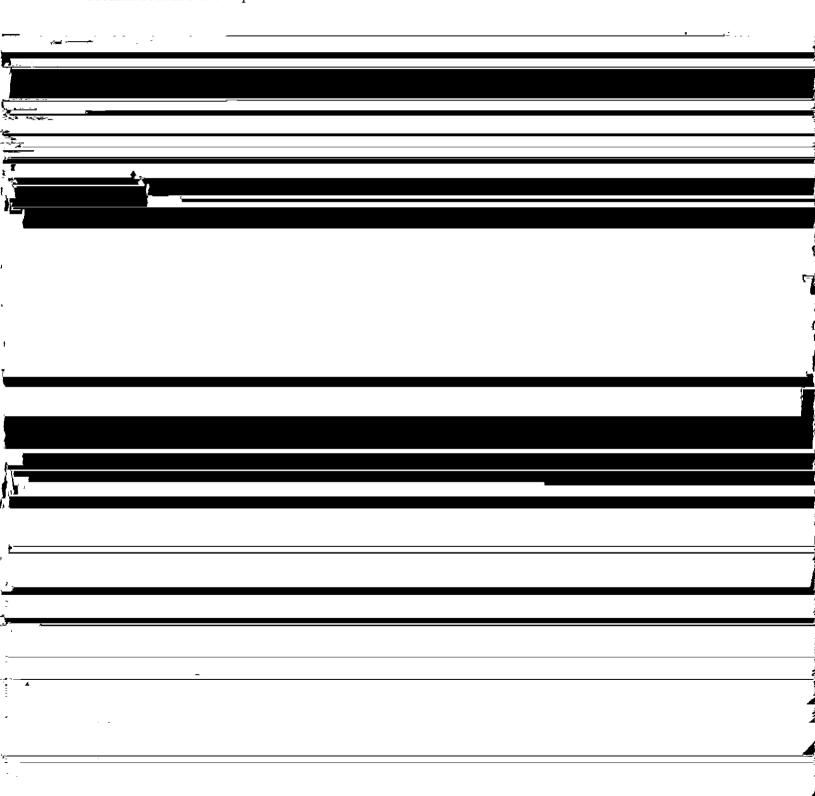
and in simplest form. Exact answers are to be given unless otherwise specified in the question. No units of

Sat $A = \{1, 2, 2, 4, 5\}$. If any mamber of Sat A is calcuted at random and substituted for x in the aver

measurement are required. Each problem has the same point-value.

11.	Let p be a positive integer multiple of 8. Let $A = \{p, 2p, 3p, 4p, p+2.p+3.p+4.p+24.\frac{1}{2}p, \frac{1}{3}p\}$. What
	is the probability that a random draw from the set A will be divisible by 8 without remainder?

12.	In rhombus ABCD, the degree measure of angle DAB is 60°. A circle passes through vertices A, B, and D
	and intersects diagonal AC at E. If $AE = 9$, find the perimeter of the rhombus. Give your answer as a
	decimal rounded to two places.



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	Name:	ANSWERS		Team Code:		
	2012 John O'Bryan Mathematical Competition Freshman-Sophomore Individual Test					
	Note: All an	swers must be written legibly and in	n simplest form.	Exact answers are to be given unless		
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