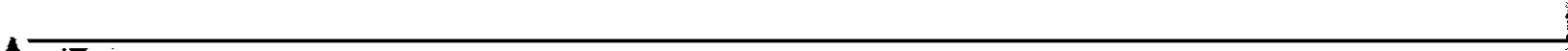
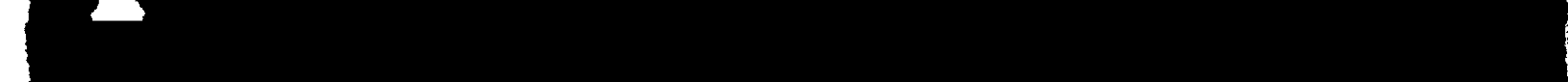
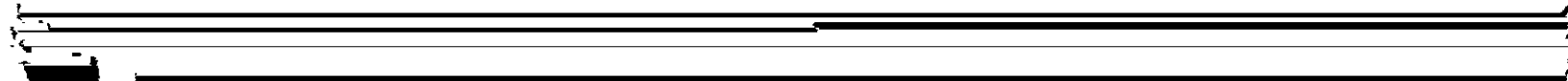
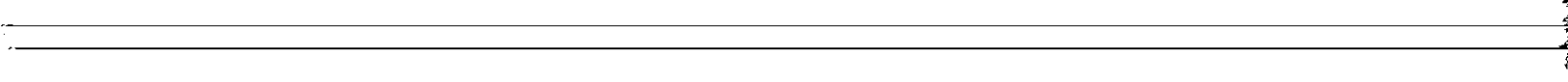
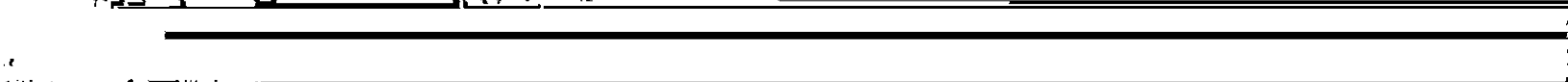


2016 John O'Bryan Mathematical Competition

Freshman Sophomore Individual Test



11. A trapezoid has sides with respective lengths 2, 15, 20, 15. Find the length of an altitude of this trapezoid.

12. In the diagram, $ABCD$ is a rhombus. If the degree measure of $\angle ADC$ is 7 times the degree measure of $\angle BAC$, find the degree measure of $\angle BCD$.



Name:

Team Code:

**2016 John O'Bryan Mathematical Competition
Freshman/Sophomore Individual Test**

Notes:

Name: _____ **ANSWERS** _____

Team Code: _____

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Freshman-Sophomore Individual Test**

otherwise specified in the question. No units of measurement are required. Each problem has the same point-value (1 point).