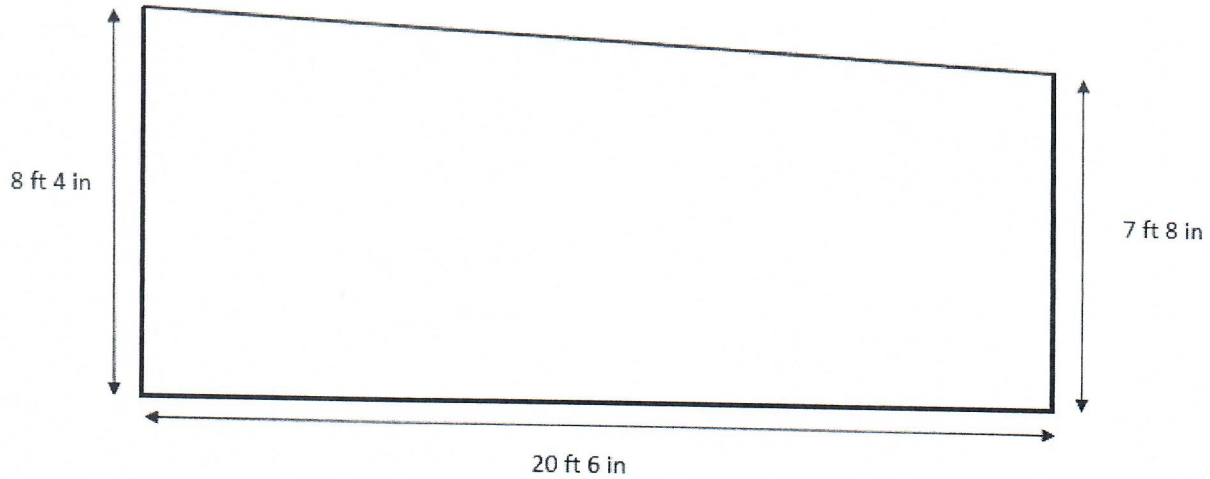
2024 KMI - Smoke Tube Variables

1st Quadrant	29 seconds
2nd Quadrant	24 seconds
3rd Quadrant	21 seconds
4th Quadrant	26 seconds

2024 KMI - Smoke Tube Entry Measurements



Air Calculation Worksheet / Examination Record

A worksheet will be provided and is to be completed by each contestant to document final air readings for the anemometer, smoke tube and magnehelic portions of the contest.

The completed worksheet will be returned to the judge(s) at the completion of the problem.

Smoke Tube Reading

1st quadrant _____seconds

2nd quadrant _____ seconds

3rd quadrant _____ seconds

4th quadrant _____ seconds

Total _____ /4 = average time

Distance in Feet (10)/Average time = _____ feet per second (FPS).

FPS x 60 (seconds/minute) = _____ FPM

Entry width _____ x Entry height _____ = _____ SF (area in square feet)

Area _____ x FPM velocity _____ = _____ CFM

Space for calculations

Anemometer Reading

Entry width _____ x Entry height _____ = _____SF (area in square feet)

FPM reading _____ + or – correction factor = _____ corrected FPM

Area _____ x (corrected) FPM velocity _____= _____ CFM

Space for calculations

Magnehelic gauge

Record dial reading _____ Positive _____ Negative _____