



Math Olympiad and Problem Solving Programs
E130 - Honors Geometry Problem Solving
Problem Set 6.2 - SAT Average

Name:

Date:

1. $\boxed{12.5}$

2. $\boxed{46}$

3. The average (arithmetic mean) of the test scores of a class of p students is 70, and the average of the test scores of a class of n students is 92. When the scores of both classes are combined, the average score is 86. What is the value of $\frac{p}{n}$?

The sum of all the test scores of both classes is $70p + 92n$ and there are a combined sum of $p + n$ students in both classes.

$$\frac{70p + 92n}{p + n} = 86$$

$$70p + 92n = 86(p + n)$$

$$70p + 92n = 86p + 86n$$

$$6n = 16p$$

$$\frac{p}{n} = \frac{6}{16}$$

$$\frac{6}{16} = \boxed{\frac{3}{8}}$$

4. $\boxed{7}$

5. \boxed{B}

6. \boxed{E}

7. \boxed{B}

8. \boxed{D}

9. \boxed{C}

10. \boxed{E}