

Conditions

3. The mean weight of the five returning members for Cardinal High School's wrestling team is 168 pounds. Three freshman wrestlers joined the team. If their weights are 140, 172 and 168 pounds, what is the mean weight of this year's team?

Solution

Let the sum of weights of 5 members, which mean is 168, is x.

Then:

$$\frac{x + 140 + 172 + 168}{8} = ?$$

$$\frac{x}{5} = 168$$

$$x = 840$$

$$\frac{840 + 140 + 172 + 168}{8} = 165$$

Answer: 165