# 1

The final exam of a particular class makes up 40% of the final grade, and Moe is failing the class with an average (arithmetic mean) of 45% just before taking the final exam. What grade does Moe need on his final exam in order to receive the passing grade average of 60% for the class?

A. 75%
B. 82.5%
C. 85%
D. 90%
E. 92.5%

# 2

A certain shade of gray paint is obtained by mixing 3 parts of white paint with 5 parts of black paint. If 2 gallons of the mixture is needed and the individual colors can be purchased only in one gallon or half gallon cans, what is the least amount of paint, in gallons, that must be purchased in order to measure out the portions needed for the mixture?

A. 2
B. 2 1/2
C. 3
D. 3 1/2
E. 4

# 3

Mixture A is 15 percent alcohol, and mixture B is 50 percent alcohol. If the two are poured together to create a 4-gallon mixture that contains 30 percent alcohol, approximately how many gallons of mixture A are in the mixture?

A. 1.5
B. 1.7
C. 2.3
D. 2.5
E. 3.0

# 4

Each of the cucumbers in 100 pounds of cucumbers is composed of 99% water, by weight. After some of the water evaporates, the cucumbers are now 98% water by weight. What is the new weight of the cucumbers, in pounds?

A. 2
B. 50
C. 92
D. 96
E. 98