45 Supporting Topics

45.1 Machine A produces a sound pressure of $58dB$, and machine B produces a sound pressure of $52dB$. What is the combined sound pressure?

A. $53dB$

B. $58dB$

C. $59dB$

D. $61dB$

Refer to the table for Combining Two Sound Levels. Note that when the difference between the dB levels of the two sources is between 5 and 9, the number of dB to be added to the highest source is $1dB$. Since Machine A is the higher source, add $1dB$ to its sound pressure level.

$$58dB + 1dB = 59dB$$

Answer C

45.2 The background noise in an office has a sound pressure level of $38dB$. An overhead fan coil unit with a sound pressure level of $43dB$ turns on. What is the combined sound pressure level?

A. $39dB$

B. $44dB$

C. $46dB$

D. $52dB$

Refer to the table for Combining Two Sound Levels. Note that when the difference between the dB levels of two sources is between 5 and 9, the number of dB to be added to the highest source is $1dB$.

Combine the two sources.

$$43dB + 1dB = 44dB$$

Answer B