



MARK FOR REVIEW?



YES



NO

Which of the reactions below shows a balanced combustion reaction?

- A. $H_2SO_4 + 2NaOH \rightarrow Na_2SO_4 + 2H_2O$
- B. $CH_4 + 2O_2 \rightarrow CO_2 + 2H_2O$
- C. $2H_2 + O_2 \rightarrow 2H_2O$
- D. $CaCO_3 \rightarrow CaO + CO_2$

CSO: SC.O.PS.2.7 – DOK: 2

Students will determine the coefficients and classify the reaction type of a chemical equation (e.g., synthesis or combination, decomposition, single replacement, or double replacement and combustion).

Rationale:

A: This acid/base reaction produces water as in a combustion reaction.

B: Correct Response

C: This synthesis/composition reaction produces water as in a combustion reaction.

D: This decomposition reaction produces carbon dioxide as in a combustion reaction.



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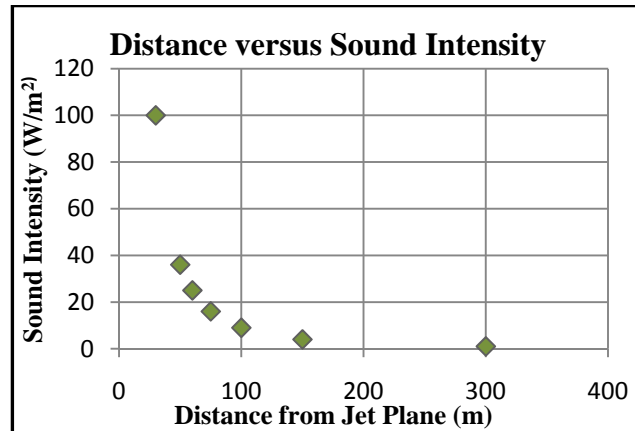
YES



NO

Students in your science class recently visited an airport to measure noise levels from jet engines. Using a sound meter, you measured the intensity of the sound from different distances of a jet positioned at one end of the runway. A table and graph of your data follows.

Distance from Plane (m)	Sound Intensity (W/m^2)
30	100
50	36
60	25
75	16
100	9
150	4
300	1



Which statement best describes the relationship between distance from a sound source and its intensity?

- A. As the distance from the plane increases, the intensity of the sound decreases at a constant rate.
- B. As the distance from the plane increases, the intensity of the sound increases at a constant rate.
- C. As the distance from the plane decreases, the intensity of the sound increases at a variable rate.
- D. As the distance from the plane decreases, the intensity of the sound decreases at a variable rate.

CSO: SC.O.PS.2.15 – DOK: 2

Students will conduct experiments to verify the inverse square relationship between gravity, distance and intensity of light and sound.

Rationale:

A: The rate is exponential not constant

B: The rate is exponential and the sound level decreases

C: Correct Response

D: The sound level increases as you move toward the plane