

Answer on Question #63788 – Physics – Mechanics | Relativity

Question:

A boat is travelling at 15 miles per hour. A man walks across the deck in a direction at right angles to the direction of the boat at the rate of 6 ft per second. What is the total distance traveled by the man in 1 second with respect to the earth?

Answer:

$$S = \sqrt{V_{boat}^2 t^2 + V_{man}^2 t^2} = 22.8 \text{ ft.}$$