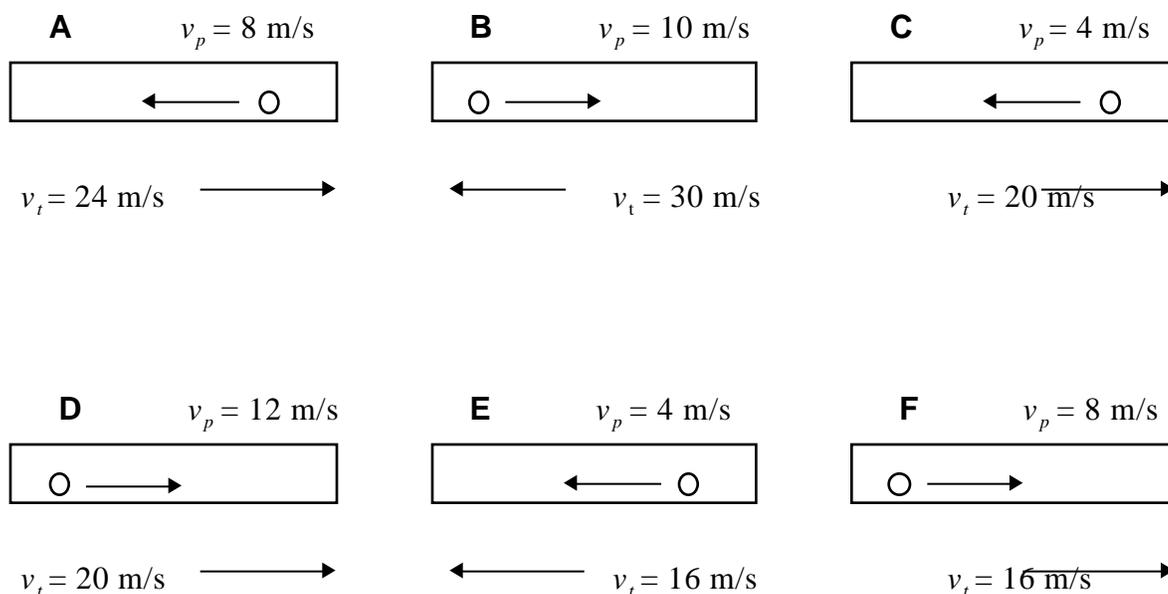


People on Trains—Speed Relative to Ground ¹³

Shown below are six situations where people are walking or running through train cars. The people are walking/running at various speeds either in the direction the train is traveling or opposite to the direction of travel of the train. The speed of the train and the speed and direction of each person are given in each figure. An observer is standing beside the track watching the train go by.

Rank these walkers/runners, from greatest to least, on the basis of how fast they are moving relative to the observer standing beside the tracks. That is, put first the person the observer would say is going fastest and put last the person the observer would say was the slowest.



Greatest 1_____ 2_____ 3_____ 4_____ 5_____ 6_____ Least

Or, all six of these people have the same speed according to the observer. _____

Please carefully explain your reasoning.

How sure were you of your ranking? (circle one)

Basically Guessed

Sure

Very Sure

1 2 3 4 5 6 7 8 9 10

¹³ C. Hieggelke, D. Maloney, T. O’Kuma