

Answer on Question #60898-Physics – Mechanics | Relativity

Two trains are each 50m long moving parallel towards each other at speeds 10m/s and 15m/s respectively. At what time will they pass each other?

Solution

The relative velocity of two trains is

$$V = v_1 + v_2 = 10 + 15 = 25 \frac{m}{s}$$

The time at which they pass each other is

$$t = \frac{d}{V} = \frac{50}{25} = 2 \text{ s.}$$

Answer: 2 s.