

Notes from class

8/22

- All motion is relative.

- When solving for relative velocity always subtract the vectors.

★ Make sure you put in negatives when the direction is negative!

Example:

① Car A is traveling 25 m/s East.
Car B is traveling 25 m/s East.

(Always subtract)

$$+25 - +25 = 0 \text{ m/s}$$

positive direction
↓

↑ these cars look like they are at rest → relative to each other.

② Car A is traveling 25 m/s East ← positive direction
Car B is traveling 25 m/s West ← negative direction
(Always subtract)

$$+25 - -25 = 50 \text{ m/s}$$

↑ these cars appear to be passing each other very quickly!