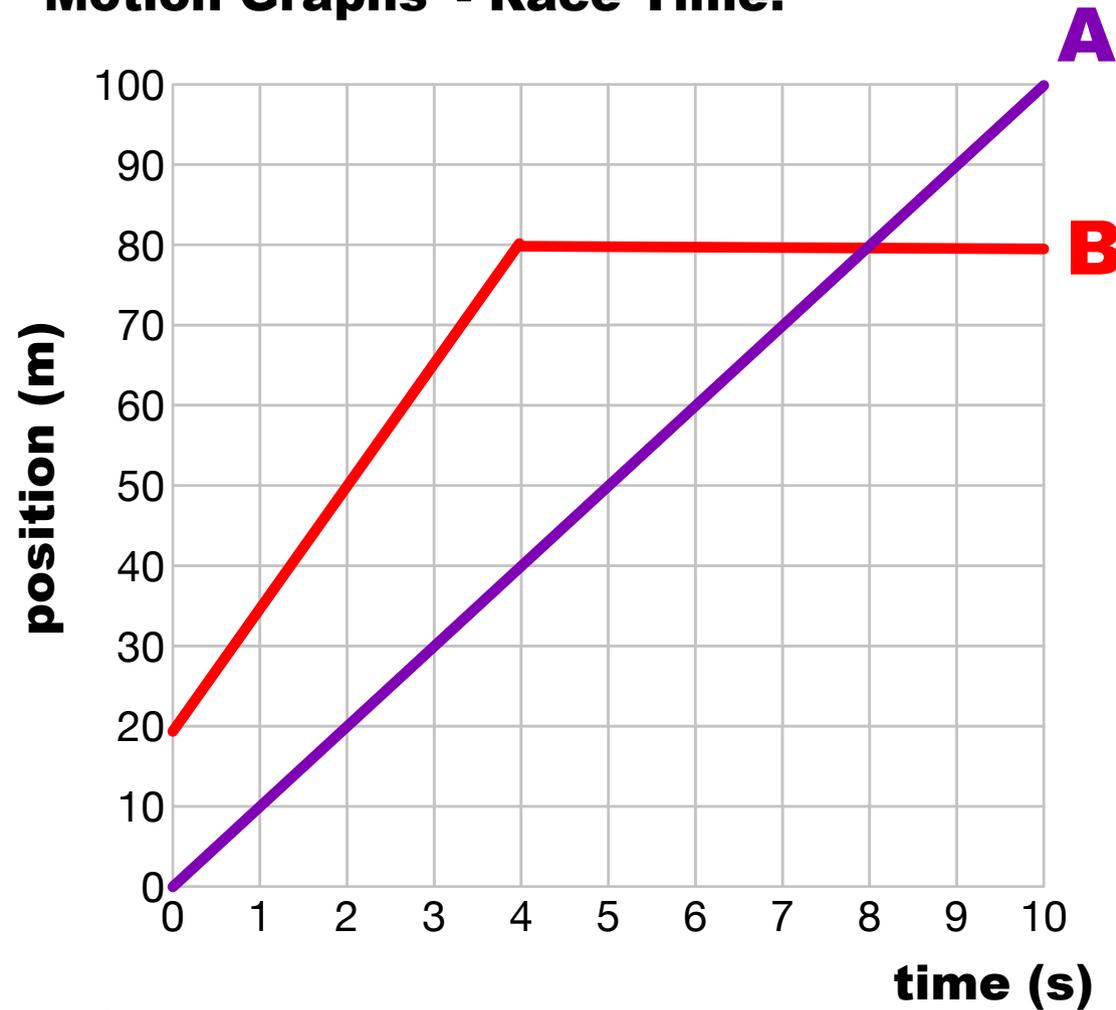# Motion Graphs - Race Time!

Calculate A's and B's average speeds
for the whole 10 seconds.

a) What happened to B's speed after the 4th second?

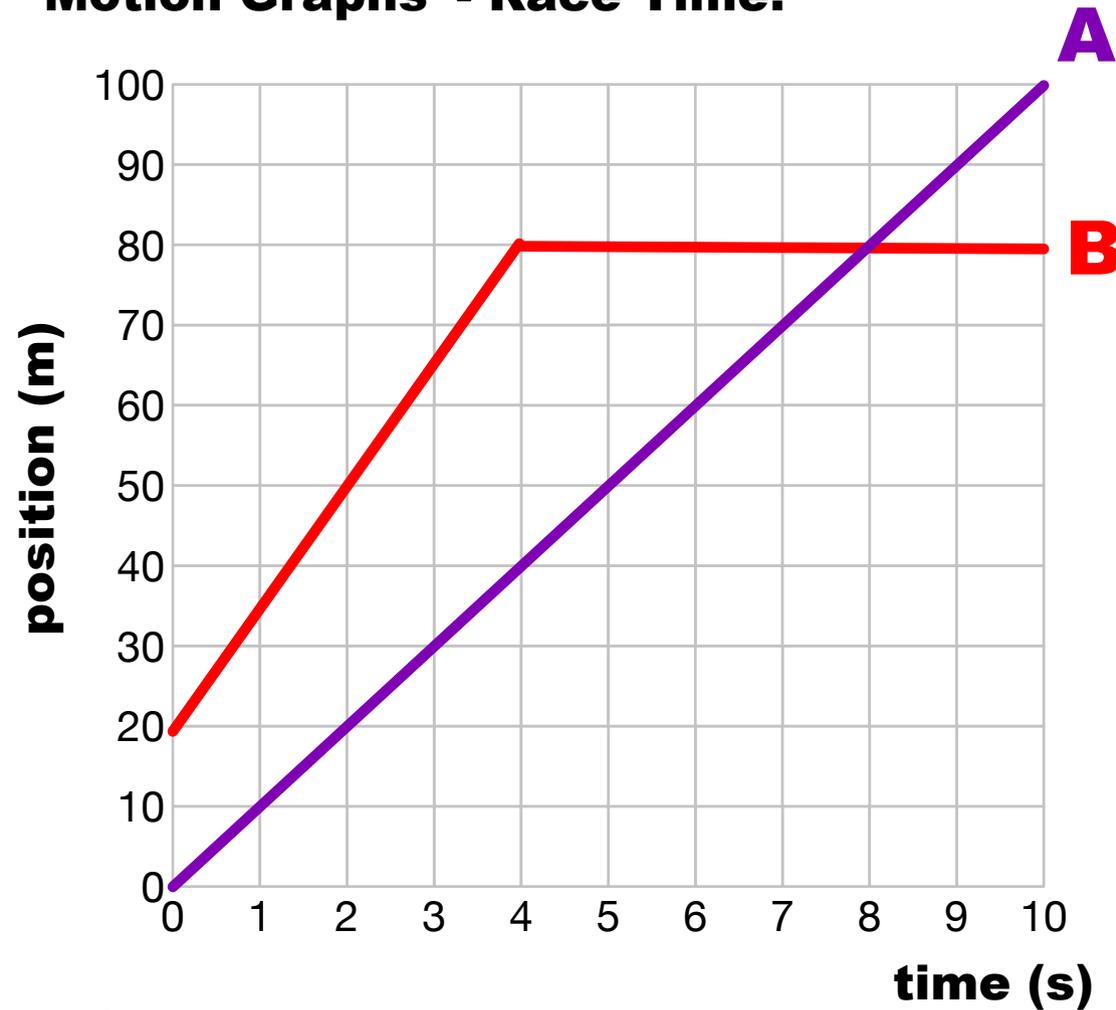b) Where was A at the 4th second?

c) During the 10 seconds, how far did A run?

d) During the 10 seconds, how far did B run?

e) If it was a 100 m race starting at 0, who won? What was the winning time?

f) What was unfair about the race?

Motion Graphs - Race Time!

Calculate A's and B's average speeds for the whole 10 seconds.

A

$$\frac{100 \text{ m}}{10 \text{ s}} = 10 \text{ m/s}$$

B

$$\frac{60 \text{ m}}{10 \text{ s}} = 6 \text{ m/s}$$

a) What happened to B's speed after the 4th second?

B stopped.

b) Where was A at the 4th second?

40 meters.

c) During the 10 seconds, how far did A run?

100 meters.

d) During the 10 seconds, how far did B run?

60 meters.

e) If it was a 100 m race starting at 0, who won? What was the winning time?

A won: 10 seconds.

f) What was unfair about the race?

B had a 20 meter head start.