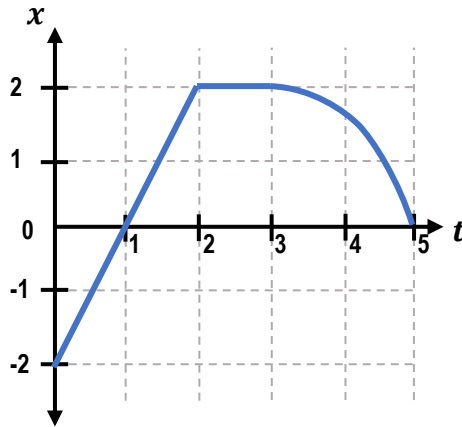


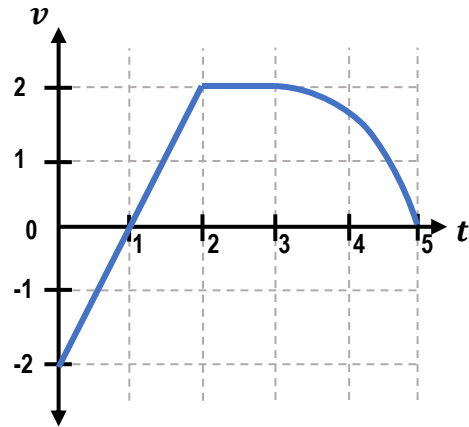
CONCEPT: VELOCITY-TIME GRAPHS & ACCELERATION

Position-Time Graphs



- Y-axis shows **POSITION**, x-axis shows TIME
- $v = \frac{\Delta x}{\Delta t} \rightarrow$ = **SLOPE** of x-t graph
 - Slope between 2 points $\rightarrow v_{avg}$
 - Slope of tangent line at 1 point $\rightarrow v_{instant}$
 - Steeper slope = v is **[higher | lower]** magnitude

Velocity-Time Graphs



- Y-axis shows _____, x-axis shows TIME
- $a = \frac{\Delta v}{\Delta t} \rightarrow$ = **SLOPE** of v-t graph
 - Slope between 2 points $\rightarrow a_{avg}$
 - Slope of tangent line at 1 point $\rightarrow a_{instant}$
 - Steeper slope = a is **[higher | lower]** magnitude

EXAMPLE: Using the velocity-time graph of a moving car,

a) What is the acceleration between $t=15$ and $t=25$?

b) What is the acceleration at $t=10$?

