



A particle moves along the x-axis with velocity as shown in the graph above. Its position,  $x(t)$ , at  $t = 0$  is 5.

- At  $t = 0$ , is the particle moving left or right? Justify your answer.
- When is the particle at rest?
- When does the particle change direction?
- When is the particle's speed the greatest?
- What is the acceleration of the particle at  $t = 1$ ?
- When is acceleration zero?
- What is the total distance traveled from  $t = 0$  until  $t = 15$ ?
- What is the particle's position at  $t = 15$ ?
- When does the particle reach its maximum position?
- What is the particle's minimum position?