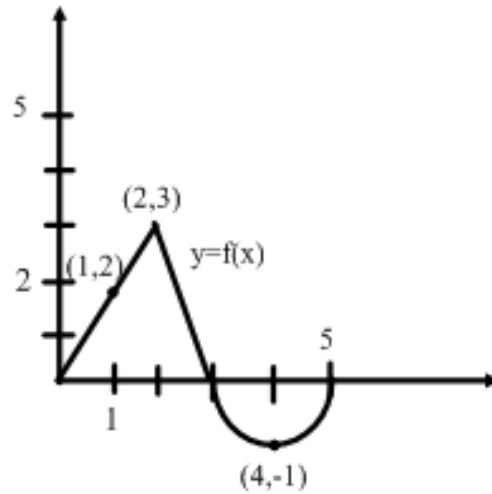


Extra 5.4 Review

$$s(t) = \int_0^t f(x) dx$$



Answer the following questions based on the above information.

- What is the particle's position at $t=1$?
- What is the particle's velocity at $t=2$?
- When is the acceleration zero?
- At what time during the 5 seconds does s have its largest value?

Answers

- $s(1) = 1$ [area from 0 to 1]
- $v(2) = f(2) = 3$ [just look at the graph]
- at 4 sec [a(4) = 0 since $f(x)$ has a horizontal tangent at 4]
- at 3 sec [largest positive area = most distance]