**7.4 Applications**

The position function of a particle is given as  where *s* is the displacement in metres and *t* is the time in seconds. Find the maximum and minimum displacement.

Find the maximum perimeter of a right triangle with hypotenuse 20 cm.

Two sides of a triangle have lengths 15 m and 20 m. The angle between them is increasing at  rad/sec. How fast is the length of the third side changing when the angle between the sides is ?