

3.

Figure 2

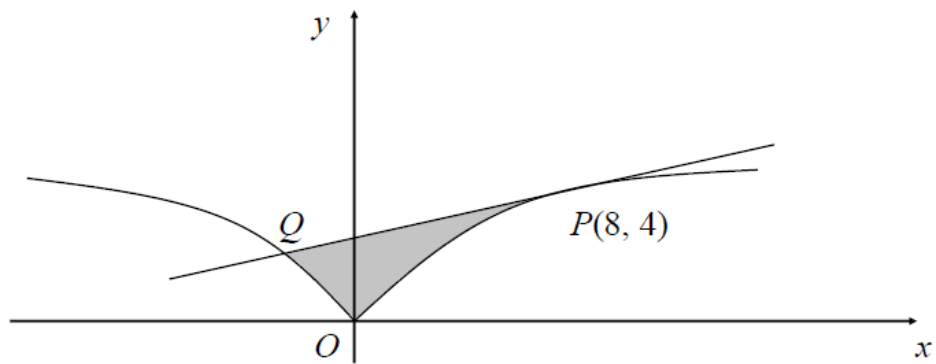


Figure 2 shows a sketch of a part of the curve C with parametric equations

$$x = t^3, \quad y = t^2.$$

The tangent at the point $P(8, 4)$ cuts C at the point Q .

Find the area of the shaded region between PQ and C .

(11)