答案: (1) AB中点横坐标为4: (2) 顶点到焦点距离最小: Answer: (1) The abscissa of the midpoint of AB is 4. (2) The distance from the vertex to the focal point is the smallest.

证明: 在抛物线 Γ 上所有的点中,顶点到焦点F的距离最小; It is known that the focus of the parabolic Γ : $y^2=4x$ is F, and the straight line with a slope of k crosses F Γ at points A and B. (1) If |AB|=10, find the abscissa of the midpoint of the line segment AB. (2) Prove: Among all the points on the parabolic Γ , the distance from the vertex to the focal point F is the smallest.

已知抛物线 Γ : $V^2 = 4x$ 的焦点为F, 过F作斜率为k的直线交 Γ 于 A、B两点。(1)若|AB|=10,求线段|AB|中点的横坐标;(2)

(b) Short-answer question within the knowledge dimension