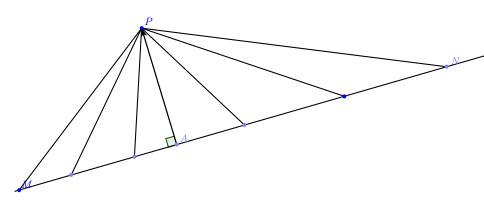
点到平面的距离

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杭州师范大学理学院数学 112

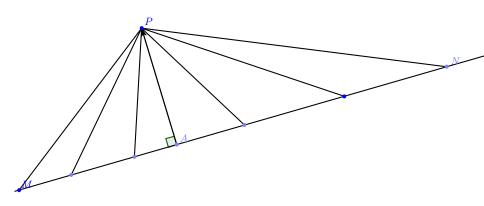
2014年3月13日

点到直线的距离



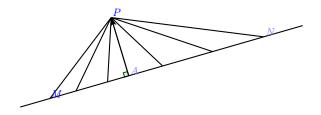
点到平面的距离

点到直线的距离



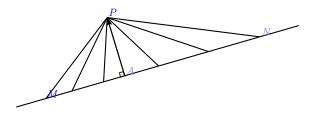
$$\overrightarrow{MA}\cdot\overrightarrow{AP}=0$$

$$\overrightarrow{MA} \cdot \overrightarrow{AP} = 0$$



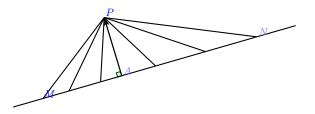
 $M(m_1, m_2), N(n_1, n_2), P(p_1, p_2).$

$$\overrightarrow{MA} \cdot \overrightarrow{AP} = 0$$



 $M(m_1, m_2), N(n_1, n_2), P(p_1, p_2). \overrightarrow{MN} = (n_1 - m_1, n_2 - m_2).$

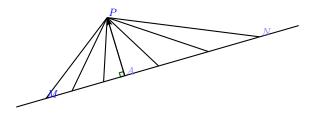




$$M(m_1, m_2), N(n_1, n_2), P(p_1, p_2). \overrightarrow{MN} = (n_1 - m_1, n_2 - m_2).$$

 $\overrightarrow{MA} = \lambda \overrightarrow{MN} = (\lambda(n_1 - m_1), \lambda(n_2 - m_2)).$



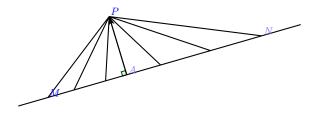


$$M(m_1, m_2), N(n_1, n_2), P(p_1, p_2). \overrightarrow{MN} = (n_1 - m_1, n_2 - m_2).$$

 $\overrightarrow{MA} = \lambda \overrightarrow{MN} = (\lambda(n_1 - m_1), \lambda(n_2 - m_2)).$

$$\overrightarrow{AP} = \overrightarrow{MP} - \overrightarrow{MA}$$





$$M(m_1, m_2), N(n_1, n_2), P(p_1, p_2). \overrightarrow{MN} = (n_1 - m_1, n_2 - m_2).$$

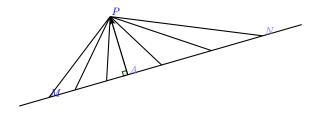
 $\overrightarrow{MA} = \lambda \overrightarrow{MN} = (\lambda(n_1 - m_1), \lambda(n_2 - m_2)).$

$$\overrightarrow{AP} = \overrightarrow{MP} - \overrightarrow{MA} = (p_1 - m_1, p_2 - m_2) -$$

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$$M(m_1, m_2), N(n_1, n_2), P(p_1, p_2). \overrightarrow{MN} = (n_1 - m_1, n_2 - m_2).$$

 $\overrightarrow{MA} = \lambda \overrightarrow{MN} = (\lambda(n_1 - m_1), \lambda(n_2 - m_2)).$

$$\overrightarrow{AP} = \overrightarrow{MP} - \overrightarrow{MA} = (p_1 - m_1, p_2 - m_2) - (\lambda(n_1 - m_1), \lambda(n_2 - m_2))$$