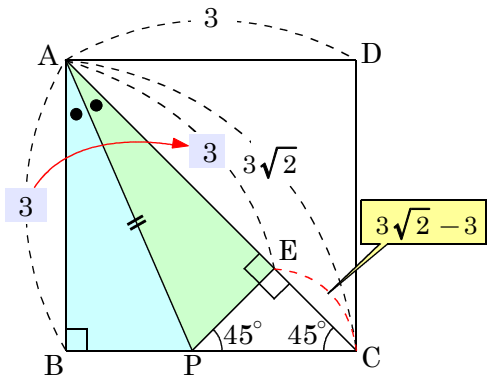
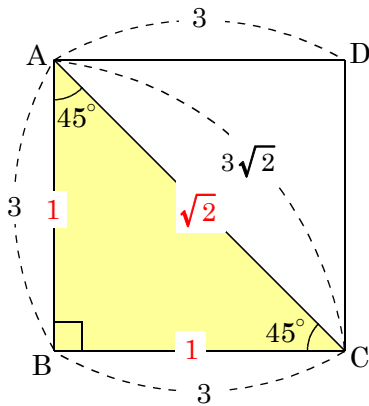
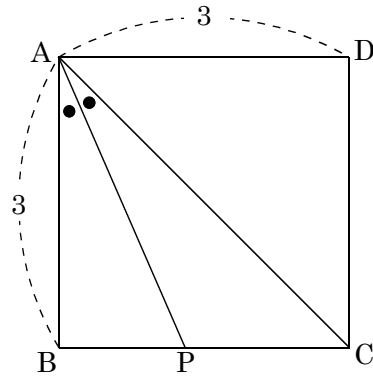
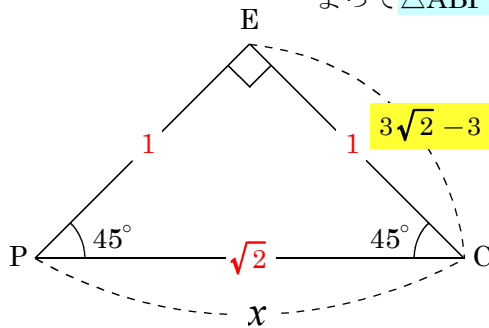


1辺が3cmの正方形ABCDで∠BACの二等分線と辺BCの交点をPとするとき、線分PCの長さを求めよ。



斜辺と1つの鋭角がそれぞれ等しい

よって△ABPと△AEPは合同な直角三角形



解き方1

$$1 : \sqrt{2} = 3\sqrt{2} - 3 : x$$

$$x = \sqrt{2} (3\sqrt{2} - 3)$$

$$x = 6 - 3\sqrt{2}$$

解き方2

$$(3\sqrt{2} - 3) \times \sqrt{2}$$

$$= 6 - 3\sqrt{2}$$