

6.

X	0	1
Y	1	0

$$\sqrt{X} + \sqrt{Y} = 1$$

$$\sqrt{Y} = 1 - \sqrt{X}$$

平方 $Y = (1 - \sqrt{X})^2 = 1 - 2\sqrt{X} + X$

$$\int_0^1 (1 - 2\sqrt{X} + X) dx$$

$$= X - \frac{4}{3}X^{\frac{3}{2}} + \frac{1}{2}X^2 \Big|_0^1$$

$$= 1 - \frac{4}{3} + \frac{1}{2}$$

$$= \frac{1}{6}$$