

1.

(ア) $-\sqrt{2}$

(イ) $-\frac{\sqrt{6}}{3}$

(ウ) $\frac{\sqrt{6}}{3}$

(エ) $\sqrt{2}$

(オ) 3

(カ) 9

(キ) $\frac{23}{2}$

(ク) -10

(ケ) $\frac{3}{2}$

(コ) -4

(サ) 5

(シ) $\frac{5}{2}$

2.

(ア) $\frac{1}{6}$

(イ) $\frac{\sqrt{3}}{6}h$

(ウ) $\frac{1}{\sqrt{3}}$

(エ) (1,1,1)

(オ) $\frac{36\sqrt{2}-28\sqrt{3}}{27}\pi$

(カ) $\frac{36\sqrt{2}+28\sqrt{3}}{27}\pi$

(キ) $\frac{5-\sqrt{33}}{4}$

3.

(ア) $y = -2ax + a^2 + 1$

(イ) $2a^2 + 2$

(ウ) $\frac{4(2a^2+2)^{\frac{3}{2}}}{3} - \frac{8}{3}$

(エ) $\frac{5\sqrt{10}-8}{3}$

(オ) $\frac{(a+3)^3}{6}$

(カ) $\frac{-a^3+15a^2+21a+13}{6}$

(キ) $\frac{217}{48}$