

1 解答

[問 1] $r = 2, \alpha = -\frac{\pi}{6}$

[問 2] $\theta = \frac{\pi}{4}, \frac{5}{12}\pi, \frac{5}{4}\pi, \frac{17}{12}\pi$

[問 3] 最大値： $\sqrt{3}$ ($\theta = \frac{\pi}{4}$)
最小値： -1 ($\theta = 0$)

2 解答

[問 1] $\frac{97}{100}$

[問 2] (a) $\frac{293}{300}$
(b) $\frac{3}{14}$

[問 3] $\frac{11}{15}$

3 解答

[問 1] (a) $y = 2^{2x-1}$
(b) (1, 2)

[問 2] $y = \frac{2^{2x-a} + b}{2}$

[問 3] 共有点は存在しない。(証明略)

4 解答

[問 1] $\left(\frac{a}{2}, \sqrt{1 - \frac{a^2}{16}}\right)$

[問 2] (a) $a = \frac{8\sqrt{5}}{5}$
(b) $\frac{1}{5}$

[問 3] (a) $a = \frac{8\sqrt{7}}{7}, \frac{8\sqrt{39}}{13}$
(b) $\frac{\sqrt{3}}{39}, \frac{3\sqrt{3}}{7}$