$\boxed{1}$ 〔解答〕　$\sin\theta = \dfrac{3}{\sqrt{10}}$, $\cos\theta = -\dfrac{1}{\sqrt{10}}$

$\boxed{2}$ 〔解答〕　(1)　$\sin\theta = -\dfrac{1}{\sqrt{5}}$, $\cos\theta = \dfrac{2}{\sqrt{5}}$

(2)　$\sin\theta = \dfrac{2\sqrt{2}}{3}$, $\tan\theta = -2\sqrt{2}$ または $\sin\theta = -\dfrac{2\sqrt{2}}{3}$, $\tan\theta = 2\sqrt{2}$

$\boxed{3}$ 〔解答〕　(1)　$-\dfrac{1}{8}$　　(2)　$\dfrac{9\sqrt{3}}{16}$

$\boxed{4}$ 〔解答〕　(1)　$\theta = \dfrac{\pi}{3}$, $\dfrac{2}{3}\pi$　　(2)　$\theta = \dfrac{\pi}{3}$, $\dfrac{4}{3}\pi$　　(3)　$\dfrac{2}{3}\pi < \theta < \dfrac{4}{3}\pi$

$\boxed{5}$ 〔解答〕　$\theta = \dfrac{\pi}{6}$, $\dfrac{3}{2}\pi$

$\boxed{6}$ 〔解答〕　$\theta = \dfrac{7}{6}\pi$, $\dfrac{11}{6}\pi$ で最大値 $\dfrac{7}{2}$；$\theta = \dfrac{\pi}{2}$ で最小値 -1

$\boxed{7}$ 〔解答〕　(1)　-2　　(2)　0

$\boxed{8}$ 〔解答〕　-19

$\boxed{9}$ 〔解答〕　$\theta = 45°$

$\boxed{10}$ 〔解答〕　$x = 4$

$\boxed{11}$ 〔解答〕　$\vec{b} = (\sqrt{3},\ \sqrt{6}),\ (-\sqrt{3},\ -\sqrt{6})$