

Ответы 1. $x \in ((3-\sqrt{5})/2; 2)$. 2. $x \in (0; 1)$. 3. $\pi n, n \in \mathbb{Z}$. 4. $S = 48/5$. 5. $x = \cos(\pi/12), x = \cos(5\pi/12), x = \cos(3\pi/4)$. 6. $40/3$.