Directions: For problems 1 - 8, find all solutions on the interval $0 \le x < 2\pi$.

1.
$$2\sin x + \sqrt{3} = 0$$

2.
$$6\cos x - 1 = 2$$

3.
$$4 \tan x + 7 = 3$$

4.
$$\sqrt{3} \tan x + 5 = 6$$

5.
$$8\cos^2 x + 3 = 5$$

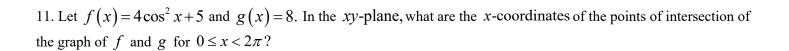
6.
$$2 \tan^2 x - 5 = 1$$

7.
$$6\sin^2 x + 9 = 12$$

8.
$$4\sin^2 x + 2 = 5$$

9. Let $f(x) = 2\cos x$ and $g(x) = -\sqrt{2}$. In the xy-plane, what are the x-coordinates of the points of intersection of the graph of f and g for $0 \le x < 2\pi$?

10. Let $f(x) = \sin x$ and $g(x) = 2\sin^2 x$. In the xy-plane, what are the x-coordinates of the points of intersection of the graph of f and g for $0 \le x < 2\pi$?



12. The function g is given by $g(x) = \sqrt{3}\cos x + 2\cos x \sin x$. What are the zeros of g on the interval $0 \le x < 2\pi$?

13. The function h is given by $h(x) = 3\tan^2 x - 1$. What are the zeros of h on the interval $0 \le x < 2\pi$?

14. What are all values of θ , for $0 \le \theta < 2\pi$, where $4\sin^2 \theta = 1$?