1. Riješiti trigonometrijske jednadžbe:
   a) $2\cos^2 x + \sqrt{3}\sin 2x = 0$;
   b) $3\sin 4x - \sqrt{3}\cos 4x = \sqrt{3}$.

4. Odrediti točke u kojima funkcija $f(x) = -\dfrac{4}{3}\cos\left(\dfrac{3x}{4} - \dfrac{\pi}{6}\right)$ postiže ekstremne vrijednosti.

5. Nacrtati graf funkcije $f(x) = \dfrac{2}{3}\sin\left(\dfrac{3x}{2} - \dfrac{\pi}{4}\right)$.

II. Pisana provjera, Grupa A

1. a) $x_1 = \dfrac{\pi}{2} + k\pi$, $x_2 = -\dfrac{\pi}{6} + k\pi$

   b) $x_1 = \dfrac{\pi}{12} + \dfrac{k\pi}{2}$, $x_2 = \dfrac{\pi}{4} + \dfrac{k\pi}{2}$

4. $T_{max}\left(\dfrac{7\pi}{9} + \dfrac{8k\pi}{3}, \dfrac{4}{3}\right)$, $T_{min}\left(\dfrac{2\pi}{9} + \dfrac{8k\pi}{3}, -\dfrac{4}{3}\right)$, $k \in \mathbb{Z}$

5. $p = \dfrac{4\pi}{3}$, nultočke $x = \dfrac{\pi}{6} + \dfrac{2k\pi}{3}$, fazni pomak $x_0 = \dfrac{\pi}{6}$,

   $T_{max}\left(\dfrac{\pi}{2} + \dfrac{4k\pi}{3}, \dfrac{2}{3}\right)$, $T_{min}\left(\dfrac{7\pi}{6} + \dfrac{4k\pi}{3}, -\dfrac{2}{3}\right)$, $k \in \mathbb{Z}$