

PENILAIAN TENGAH SEMESTER

16. himpunan penyelesaian dari $\sin (x - 27^\circ) = \frac{1}{2}$ untuk $0^\circ \leq X \leq 360^\circ$ adalah. . .

- A. $\{71^\circ, 188^\circ\}$
- B. $\{61^\circ, 177^\circ\}$
- C. $\{61^\circ, 187^\circ\}$
- D. $\{51^\circ, 187^\circ\}$
- E. $\{57^\circ, 177^\circ\}$

17. himpunan penyelesaian dari $\cos (x - \frac{1}{6}\pi) = 1$ untuk $0 \leq x \leq 2\pi$ adalah. . .

- A. $\{\frac{1}{2}\pi\}$
- B. $\{\frac{1}{6}\pi\}$
- c. $\{\frac{1}{3}\pi\}$
- D. $\{\frac{5}{6}\pi\}$
- E. $\{\frac{11}{12}\pi\}$

18. himpunan penyelesaian dari $\tan (x + 24^\circ) = -\sqrt{3}$ untuk $0^\circ \leq x \leq 360^\circ$ adalah. . .

- A. $\{96^\circ, 286^\circ\}$
- B. $\{116^\circ, 276^\circ\}$
- C. $\{96^\circ, 296^\circ\}$
- D. $\{96^\circ, 276^\circ\}$
- E. $\{116^\circ, 286^\circ\}$

19. himpunan penyelesaian dari $\sin (5x + \frac{1}{2}\pi) = \frac{1}{2}\sqrt{2}$ untuk $0 \leq x \leq 2\pi$ adalah. . .

- A. $\{\frac{1}{20}\pi, \frac{7}{20}\pi, \frac{9}{20}\pi, \frac{3}{4}\pi, \frac{17}{20}\pi, \frac{23}{20}\pi, \frac{5}{4}\pi, \frac{31}{20}\pi, \frac{7}{4}\pi, \frac{39}{20}\pi\}$
- B. $\{\frac{1}{20}\pi, \frac{7}{20}\pi, \frac{9}{20}\pi, \frac{3}{4}\pi, \frac{17}{20}\pi, \frac{19}{20}\pi, \frac{23}{20}\pi, \frac{31}{20}\pi, \frac{7}{4}\pi, \frac{39}{20}\pi\}$
- C. $\{\frac{1}{20}\pi, \frac{1}{4}\pi, \frac{9}{20}\pi, \frac{3}{4}\pi, \frac{17}{20}\pi, \frac{23}{20}\pi, \frac{5}{4}\pi, \frac{31}{20}\pi, \frac{33}{20}\pi, \frac{39}{20}\pi\}$
- D. $\{\frac{1}{20}\pi, \frac{1}{4}\pi, \frac{7}{20}\pi, \frac{9}{20}\pi, \frac{17}{20}\pi, \frac{23}{20}\pi, \frac{5}{4}\pi, \frac{31}{20}\pi, \frac{33}{20}\pi, \frac{39}{20}\pi\}$
- E. $\{\frac{1}{20}\pi, \frac{7}{20}\pi, \frac{9}{20}\pi, \frac{3}{4}\pi, \frac{17}{20}\pi, \frac{23}{20}\pi, \frac{5}{4}\pi, \frac{31}{20}\pi, \frac{33}{20}\pi, \frac{39}{20}\pi\}$

20. himpunan penyelesaian dari $\cos(4x - 35^\circ) = -\frac{1}{2}\sqrt{2}$ untuk $0^\circ \leq X \leq 360^\circ$ adalah. . .

- A. $\{ 42,5^\circ, 65^\circ, 132,5^\circ, 155^\circ, 222,5^\circ, 245^\circ, 312,5^\circ, 335^\circ \}$
- B. $\{ 42,5^\circ, 80^\circ, 132,5^\circ, 155^\circ, 222,5^\circ, 260^\circ, 312,5^\circ, 350^\circ \}$
- C. $\{ 42,5^\circ, 60^\circ, 132,5^\circ, 150^\circ, 222,5^\circ, 260^\circ, 312,5^\circ, 330^\circ \}$
- D. $\{ 32,5^\circ, 65^\circ, 122,5^\circ, 160^\circ, 212,5^\circ, 250^\circ, 302,5^\circ, 340^\circ \}$
- E. $\{ 52,5^\circ, 70^\circ, 142,5^\circ, 160^\circ, 232,5^\circ, 245^\circ, 322,5^\circ, 335^\circ \}$

21. himpunan penyelesaian dari $\tan(2x - \frac{2}{5}\pi) = \frac{1}{3}\pi\sqrt{3}$ untuk $0 \leq x \leq 2\pi$ adalah. . .

- A. $\{ \frac{17}{60}\pi, \frac{57}{60}\pi, \frac{87}{60}\pi, \frac{117}{60}\pi \}$
- B. $\{ \frac{17}{60}\pi, \frac{47}{60}\pi, \frac{77}{60}\pi, \frac{107}{60}\pi \}$
- C. $\{ \frac{17}{60}\pi, \frac{37}{60}\pi, \frac{67}{60}\pi, \frac{117}{60}\pi \}$
- D. $\{ \frac{17}{60}\pi, \frac{47}{60}\pi, \frac{87}{60}\pi, \frac{117}{60}\pi \}$
- E. $\{ \frac{17}{60}\pi, \frac{37}{60}\pi, \frac{77}{60}\pi, \frac{107}{60}\pi \}$

22. himpunan penyelesain dari $2 \sin 5x - \sqrt{3} = 0$ untuk $0^\circ \leq X \leq 360^\circ$ adalah. . . .

- A. $\{ 12^\circ, 24^\circ, 74^\circ, 96^\circ, 146^\circ, 178^\circ, 238^\circ, 240^\circ, 300^\circ, 312^\circ \}$
- B. $\{ 12^\circ, 54^\circ, 84^\circ, 96^\circ, 156^\circ, 168^\circ, 238^\circ, 240^\circ, 300^\circ, 312^\circ \}$
- C. $\{ 12^\circ, 24^\circ, 84^\circ, 96^\circ, 156^\circ, 168^\circ, 228^\circ, 240^\circ, 300^\circ, 312^\circ \}$
- D. $\{ 12^\circ, 34^\circ, 84^\circ, 96^\circ, 146^\circ, 168^\circ, 228^\circ, 240^\circ, 300^\circ, 322^\circ \}$
- E. $\{ 12^\circ, 24^\circ, 74^\circ, 96^\circ, 156^\circ, 158^\circ, 218^\circ, 240^\circ, 300^\circ, 312^\circ \}$

23. himpunan penyelesaian dari $2 \cos 3x + 1 = 0$ untuk $0 \leq x \leq 2\pi$ adalah. . .

- A. $\{\frac{2}{9}\pi, \frac{4}{9}\pi, \frac{8}{9}\pi, \frac{11}{9}\pi, \frac{14}{9}\pi, \frac{16}{9}\pi\}$
- B. $\{\frac{2}{9}\pi, \frac{5}{9}\pi, \frac{7}{9}\pi, \frac{10}{9}\pi, \frac{13}{9}\pi, \frac{16}{9}\pi\}$
- C. $\{\frac{2}{9}\pi, \frac{4}{9}\pi, \frac{7}{9}\pi, \frac{10}{9}\pi, \frac{14}{9}\pi, \frac{17}{9}\pi\}$
- D. $\{\frac{2}{9}\pi, \frac{4}{9}\pi, \frac{8}{9}\pi, \frac{10}{9}\pi, \frac{14}{9}\pi, \frac{16}{9}\pi\}$
- E. $\{\frac{2}{9}\pi, \frac{5}{9}\pi, \frac{8}{9}\pi, \frac{10}{9}\pi, \frac{13}{9}\pi, \frac{16}{9}\pi\}$

24. himpunan penyelesain dari $\sin 4x - \sqrt{3} = 0$ untuk $0^0 \leq X \leq 360^0$ adalah. . . .

- A. $\{15^0, 60^0, 105^0, 150^0, 195^0, 240^0, 285^0, 330^0\}$
- B. $\{15^0, 60^0, 115^0, 150^0, 185^0, 240^0, 285^0, 330^0\}$
- C. $\{15^0, 60^0, 105^0, 120^0, 195^0, 210^0, 295^0, 300^0\}$
- D. $\{15^0, 60^0, 115^0, 150^0, 175^0, 210^0, 295^0, 330^0\}$
- E. $\{15^0, 60^0, 105^0, 120^0, 185^0, 210^0, 275^0, 300^0\}$

25. himpunan penyelesaian dari $2 \sin^2 x + 5 \sin x - 3 = 0$ untuk $0^0 \leq X \leq 360^0$ adalah. . . .

- A. $\{60^0, 210^0\}$
- B. $\{60^0, 150^0\}$
- C. $\{60^0, 120^0\}$
- D. $\{30^0, 120^0\}$
- E. $\{30^0, 150^0\}$

26. himpunan penyelesain dari $\cos^2 x - \cos x - 2 = 0$ untuk $0 \leq x \leq 2\pi$ adalah. . .

A. $\{2\pi\}$

B. $\{\frac{3}{2}\pi\}$

C. $\{\pi\}$

D. $\{\frac{1}{2}\pi\}$

E. $\{0\}$

27. himpunan penyelesaian dari $3 \tan^2 x - 1 = 0$ untuk $0^\circ \leq X \leq 360^\circ$ adalah. . . .

A. $\{30^\circ, 120^\circ, 210^\circ, 300^\circ\}$

B. $\{30^\circ, 150^\circ, 210^\circ, 330^\circ\}$

C. $\{30^\circ, 120^\circ, 240^\circ, 330^\circ\}$

D. $\{60^\circ, 120^\circ, 210^\circ, 330^\circ\}$

E. $\{60^\circ, 150^\circ, 240^\circ, 300^\circ\}$

28. himpunan penyelesaian dari $2 \sin^2 5x - 1 = 0$ untuk $0 \leq x \leq 2\pi$ adalah. . .

A. $\{\frac{1}{20}\pi, \frac{3}{20}\pi, \frac{9}{20}\pi, \frac{11}{20}\pi, \frac{3}{4}\pi, \frac{19}{20}\pi, \frac{21}{20}\pi, \frac{29}{20}\pi, \frac{33}{20}\pi, \frac{7}{4}\pi\}$

B. $\{\frac{1}{20}\pi, \frac{3}{20}\pi, \frac{1}{4}\pi, \frac{7}{20}\pi, \frac{17}{20}\pi, \frac{19}{20}\pi, \frac{21}{20}\pi, \frac{29}{20}\pi, \frac{31}{20}\pi, \frac{7}{4}\pi\}$

C. $\{\frac{1}{20}\pi, \frac{3}{20}\pi, \frac{9}{20}\pi, \frac{11}{20}\pi, \frac{17}{20}\pi, \frac{19}{20}\pi, \frac{5}{4}\pi, \frac{29}{20}\pi, \frac{31}{20}\pi, \frac{7}{4}\pi\}$

D. $\{\frac{1}{20}\pi, \frac{3}{20}\pi, \frac{9}{20}\pi, \frac{11}{20}\pi, \frac{17}{20}\pi, \frac{19}{20}\pi, \frac{5}{4}\pi, \frac{27}{20}\pi, \frac{33}{20}\pi, \frac{7}{4}\pi\}$

E. $\{\frac{1}{20}\pi, \frac{3}{20}\pi, \frac{9}{20}\pi, \frac{11}{20}\pi, \frac{17}{20}\pi, \frac{19}{20}\pi, \frac{5}{4}\pi, \frac{29}{20}\pi, \frac{33}{20}\pi, \frac{7}{4}\pi\}$

29. himpunan penyelesaian dari $4 \cos^2 3x - 3 = 0$ untuk $0^\circ \leq X \leq 360^\circ$ adalah. . .

- A. $\{ 10^\circ, 50^\circ, 70^\circ, 110^\circ, 130^\circ, 170^\circ, 190^\circ, 230^\circ, 250^\circ, 290^\circ, 310^\circ, 350^\circ \}$
- B. $\{ 10^\circ, 50^\circ, 80^\circ, 110^\circ, 140^\circ, 170^\circ, 190^\circ, 210^\circ, 250^\circ, 290^\circ, 310^\circ, 350^\circ \}$
- C. $\{ 10^\circ, 40^\circ, 70^\circ, 100^\circ, 130^\circ, 170^\circ, 180^\circ, 230^\circ, 260^\circ, 290^\circ, 310^\circ, 350^\circ \}$
- D. $\{ 10^\circ, 40^\circ, 80^\circ, 110^\circ, 130^\circ, 160^\circ, 190^\circ, 230^\circ, 250^\circ, 290^\circ, 310^\circ, 350^\circ \}$
- E. $\{ 10^\circ, 50^\circ, 70^\circ, 100^\circ, 120^\circ, 160^\circ, 190^\circ, 230^\circ, 250^\circ, 270^\circ, 300^\circ, 350^\circ \}$

30. himpunan penyelesaian dari $\tan^2 2x - 3 = 0$ untuk $0 \leq x \leq 2\pi$ adalah. . .

- A. $\{ \frac{1}{6}\pi, \frac{1}{3}\pi, \frac{1}{2}\pi, \frac{5}{6}\pi, \frac{7}{6}\pi, \frac{4}{3}\pi, \frac{3}{2}\pi, \frac{11}{6}\pi \}$
- B. $\{ \frac{1}{6}\pi, \frac{1}{3}\pi, \frac{2}{3}\pi, \frac{5}{6}\pi, \frac{7}{6}\pi, \frac{4}{3}\pi, \frac{3}{2}\pi, \frac{11}{6}\pi \}$
- C. $\{ \frac{1}{6}\pi, \frac{1}{3}\pi, \frac{2}{3}\pi, \frac{5}{6}\pi, \frac{7}{6}\pi, \frac{4}{3}\pi, \frac{5}{3}\pi, \frac{11}{6}\pi \}$
- D. $\{ \frac{1}{6}\pi, \frac{1}{3}\pi, \frac{2}{3}\pi, \frac{5}{6}\pi, \pi, \frac{4}{3}\pi, \frac{5}{3}\pi, \frac{11}{6}\pi \}$
- E. $\{ \frac{1}{6}\pi, \frac{1}{3}\pi, \frac{1}{2}\pi, \frac{5}{6}\pi, \frac{7}{6}\pi, \frac{4}{3}\pi, \frac{5}{3}\pi, \frac{11}{6}\pi \}$