PENILAIAN TENGAH SEMESTER

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

A. {71^0 , 188^0}
D. {51^0 , 187^0}
B. {61^0 , 177^0}
E. {57^0 , 177^0}
C. {61^0 , 187^0}

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

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

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

A. { 96^0,286^0}
D. { 96^0,276^0}
B. { 116^0,276^0}
E. { 116^0,286^0}
C. { 96^0,296^0}

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

A. $\{42{,}5^0, 65^0, 132{,}5^0, 155^0, 222{,}5^0, 245^0, 312{,}5^0, 335^0\}$

B. $\{42{,}5^0, 80^0, 132{,}5^0, 155^0, 222{,}5^0, 260^0, 312{,}5^0, 350^0\}$

C. $\{42{,}5^0, 60^0, 132{,}5^0, 150^0, 222{,}5^0, 260^0, 312{,}5^0, 330^0\}$

D. $\{32{,}5^0, 65^0, 122{,}5^0, 160^0, 212{,}5^0, 250^0, 302{,}5^0, 340^0\}$

E. $\{52{,}5^0, 70^0, 142{,}5^0, 160^0, 232{,}5^0, 245^0, 322{,}5^0, 335^0\}$

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 $0^0 \leq X \leq 360^0$ adalah. . . .

A. $\{12^0, 24^0, 74^0, 96^0, 146^0, 178^0, 238^0, 240^0, 300^0, 312^0\}$

B. $\{12^0, 54^0, 84^0, 96^0, 156^0, 168^0, 238^0, 240^0, 300^0, 312^0\}$

C. $\{12^0, 24^0, 84^0, 96^0, 156^0, 168^0, 228^0, 240^0, 300^0, 312^0\}$

D. $\{12^0, 34^0, 84^0, 96^0, 146^0, 168^0, 228^0, 240^0, 300^0, 322^0\}$

E. $\{12^0, 24^0, 74^0, 96^0, 156^0, 158^0, 218^0, 240^0, 300^0, 312^0\}$

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 $0 \le x \le 2\pi$ adalah. . .

A. $\{2\pi\}$

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

C. $\{\pi\}$

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

E. E. {0}

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

A. $\{30^0, 120^0, 210^0, 300^0\}$

B. $\{30^0, 150^0, 210^0, 330^0\}$

C. $\{30^0, 120^0, 240^0, 330^0\}$

D. $\{60^0, 120^0, 210^0, 330^0\}$

E. $\{60^0, 150^0, 240^0, 300^0\}$

28. himpunan penyelesaian dari $2\sin^2 5x - 1 = 0$ untuk $0 \le x \le 2\pi$ 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 $0^0 \leq X \leq 360^0$ adalah. . . .

A. $\{ 10^0, 50^0, 70^0, 110^0, 130^0, 170^0, 190^0, 230^0, 250^0, 290^0, 310^0, 350^0 \}$

B. $\{ 10^0, 50^0, 80^0, 110^0, 140^0, 170^0, 190^0, 210^0, 250^0, 290^0, 310^0, 350^0 \}$

C. $\{ 10^0, 40^0, 70^0, 100^0, 130^0, 170^0, 180^0, 230^0, 260^0, 290^0, 310^0, 350^0 \}$

D. $\{ 10^0, 40^0, 80^0, 110^0, 130^0, 160^0, 190^0, 230^0, 250^0, 290^0, 310^0, 350^0 \}$

E. $\{ 10^0, 50^0, 70^0, 100^0, 120^0, 160^0, 190^0, 230^0, 250^0, 270^0, 300^0, 350^0 \}$

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. $\{\frac{1}{6}\pi, \frac{1}{3}\pi, \frac{1}{2}\pi, \frac{5}{6}\pi, \frac{7}{6}\pi, \frac{4}{3}\pi, \frac{5}{3}\pi, \frac{11}{6}\pi\}$