Nama :

No. Presensi/Kelas:

Mata Pelajaran : Matematika Peminatan

Kelas/Semester : XI/Ganjil

Petunjuk: Pilihlah salah satu jawaban yang dianggap paling tepat!

1. Himpunan penyelesaian persamaan trigonometri $sinx = -\frac{1}{2},\ 0 \le x \le 2\pi$!

   A. $\left\{\frac{7}{6}\pi, \frac{11}{6}\pi\right\}$

   B. $\left\{\frac{7}{6}\pi, \frac{13}{6}\pi\right\}$

   C. $\left\{\frac{7}{6}\pi, \frac{14}{6}\pi\right\}$

   D. $\left\{\frac{7}{6}\pi, \frac{15}{6}\pi\right\}$

   E. $\left\{\frac{5}{6}\pi, \frac{13}{6}\pi\right\}$

2. Himpunan penyelesaian persamaan trigonometri $cosx = -\frac{1}{2}\sqrt{2},\ 0° \le x \le 360°$!

   A. $\{115°, 225°\}$

   B. $\{135°, 225°\}$

   C. $\{145°, 225°\}$

   D. $\{155°, 225°\}$

   E. $\{135°, 235°\}$

3. Himpunan penyelesaian persamaan trigonometri $tan6x = \sqrt{3},\ 0 \le x \le 2\pi$!

   A. $\left\{\frac{1}{18}\pi, \frac{2}{9}\pi, \frac{7}{18}\pi, \frac{5}{9}\pi, \frac{15}{18}\pi, \frac{8}{9}\pi, \frac{18}{18}\pi, \frac{11}{9}\pi, \frac{25}{18}\pi, \frac{14}{9}\pi, \frac{31}{18}\pi, \frac{17}{9}\pi\right\}$

   B. $\left\{\frac{1}{18}\pi, \frac{2}{9}\pi, \frac{9}{18}\pi, \frac{5}{9}\pi, \frac{13}{18}\pi, \frac{8}{9}\pi, \frac{18}{18}\pi, \frac{12}{9}\pi, \frac{25}{18}\pi, \frac{15}{9}\pi, \frac{31}{18}\pi, \frac{17}{9}\pi\right\}$

   C. $\left\{\frac{1}{18}\pi, \frac{2}{9}\pi, \frac{7}{18}\pi, \frac{5}{9}\pi, \frac{13}{18}\pi, \frac{8}{9}\pi, \frac{19}{18}\pi, \frac{11}{9}\pi, \frac{25}{18}\pi, \frac{14}{9}\pi, \frac{31}{18}\pi, \frac{17}{9}\pi\right\}$

   D. $\left\{\frac{1}{18}\pi, \frac{2}{9}\pi, \frac{9}{18}\pi, \frac{5}{9}\pi, \frac{13}{18}\pi, \frac{8}{9}\pi, \frac{18}{18}\pi, \frac{11}{9}\pi, \frac{25}{18}\pi, \frac{14}{9}\pi, \frac{31}{18}\pi, \frac{17}{9}\pi\right\}$

   E. $\left\{\frac{1}{18}\pi, \frac{2}{9}\pi, \frac{9}{18}\pi, \frac{5}{9}\pi, \frac{15}{18}\pi, \frac{8}{9}\pi, \frac{18}{18}\pi, \frac{12}{9}\pi, \frac{25}{18}\pi, \frac{14}{9}\pi, \frac{33}{18}\pi, \frac{17}{9}\pi\right\}$

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4. Himpunan penyelesaian persamaan trigonometri $sin2x + 1 = 0,\ 0° \leq x \leq 360°$!
   A. $\{105°, 315°\}$
   B. $\{115°, 315°\}$
   C. $\{125°, 325°\}$
   D. $\{105°, 325°\}$
   E. $\{135°, 315°\}$
5. Himpunan penyelesaian persamaan trigonometri $3tan4x - \sqrt{3} = 0,\ 0° \leq x \leq 360°$!
   A. $\{7{,}5°; 52{,}5°, 97{,}5°, 142{,}5°, 187{,}5°, 232{,}5°, 277{,}5°; 322{,}5°\}$
   B. $\{7{,}5°; 52{,}5°, 97{,}5°, 142{,}5°, 187{,}5°, 232{,}5°, 267{,}5°; 322{,}5°\}$
   C. $\{7{,}5°; 52{,}5°, 97{,}5°, 142{,}5°, 187{,}5°, 222{,}5°, 267{,}5°; 322{,}5°\}$
   D. $\{7{,}5°; 52{,}5°, 97{,}5°, 142{,}5°, 177{,}5°, 232{,}5°, 267{,}5°; 332{,}5°\}$
   E. $\{7{,}5°; 52{,}5°, 97{,}5°, 142{,}5°, 177{,}5°, 222{,}5°, 267{,}5°; 332{,}5°\}$
6. Himpunan penyelesaian persamaan trigonometri $\cos(x + 75°) = \frac{1}{2},\ 0° \leq x \leq 360°$!
   A. $\{225°, 325°\}$
   B. $\{225°, 335°\}$
   C. $\{225°, 345°\}$
   D. $\{215°, 335°\}$
   E. $\{215°, 345°\}$
7. Himpunan penyelesaian persamaan trigonometri $sin\left(x + \frac{1}{5}\pi\right) = 1,\ 0 \leq x \leq 2\pi$!
   A. $\left\{\frac{1}{10}\pi\right\}$
   B. $\left\{\frac{3}{10}\pi\right\}$
   C. $\left\{\frac{13}{10}\pi\right\}$
   D. $\left\{\frac{1}{10}\pi, \frac{13}{10}\pi,\right\}$
   E. $\left\{\frac{1}{10}\pi, \frac{3}{10}\pi,\right\}$

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8. Himpunan penyelesaian persamaan trigonometri $tan(5x - 40°) = -1,\ 0° \leq x \leq 360°$!

   A. $\{35°, 71°, 107°, 143°, 179°, 205°, 251°, 287°, 313°, 339°\}$

   B. $\{35°, 71°, 107°, 143°, 179°, 205°, 251°, 287°, 323°, 359°\}$

   C. $\{35°, 71°, 107°, 143°, 179°, 215°, 251°, 227°, 313°, 359°\}$

   D. $\{35°, 71°, 107°, 143°, 179°, 215°, 251°, 287°, 323°, 359°\}$

   E. $\{35°, 71°, 107°, 143°, 179°, 215°, 251°, 287°, 313°, 359°\}$

9. Himpunan penyelesaian persamaan trigonometri $cos\left(5x - \frac{5}{8}\pi\right) = \frac{1}{2}\sqrt{2},\ 0 \leq x \leq \pi$!

   A. $\left\{\frac{3}{40}\pi, \frac{7}{40}\pi, \frac{19}{40}\pi, \frac{23}{40}\pi, \frac{7}{8}\pi, \frac{37}{40}\pi\right\}$

   B. $\left\{\frac{3}{40}\pi, \frac{7}{40}\pi, \frac{19}{40}\pi, \frac{23}{40}\pi, \frac{7}{8}\pi, \frac{39}{40}\pi\right\}$

   C. $\left\{\frac{3}{40}\pi, \frac{7}{40}\pi, \frac{19}{40}\pi, \frac{21}{40}\pi, \frac{7}{8}\pi, \frac{37}{40}\pi\right\}$

   D. $\left\{\frac{3}{40}\pi, \frac{5}{40}\pi, \frac{19}{40}\pi, \frac{23}{40}\pi, \frac{7}{8}\pi, \frac{37}{40}\pi\right\}$

   E. $\left\{\frac{1}{40}\pi, \frac{7}{40}\pi, \frac{19}{40}\pi, \frac{23}{40}\pi, \frac{7}{8}\pi, \frac{37}{40}\pi\right\}$

10. Himpunan penyelesaian persamaan trigonometri $tan\left(7x + \frac{2}{3}\pi\right) = \frac{1}{3}\sqrt{3},\ 0 \leq x \leq \pi$!

    A. $\left\{\frac{1}{14}\pi, \frac{3}{14}\pi, \frac{5}{14}\pi, \frac{1}{2}\pi, \frac{9}{14}\pi, \frac{11}{14}\pi, \frac{13}{14}\pi\right\}$

    B. $\left\{\frac{1}{14}\pi, \frac{3}{14}\pi, \frac{5}{14}\pi, \frac{1}{2}\pi, \frac{9}{14}\pi, \frac{12}{14}\pi, \frac{13}{14}\pi\right\}$

    C. $\left\{\frac{1}{14}\pi, \frac{3}{14}\pi, \frac{5}{14}\pi, \frac{1}{2}\pi, \frac{10}{14}\pi, \frac{12}{14}\pi, \frac{13}{14}\pi\right\}$

    D. $\left\{\frac{1}{14}\pi, \frac{3}{14}\pi, \frac{5}{14}\pi, \frac{1}{2}\pi, \frac{8}{14}\pi, \frac{12}{14}\pi, \frac{13}{14}\pi\right\}$

    E. $\left\{\frac{1}{14}\pi, \frac{2}{14}\pi, \frac{5}{14}\pi, \frac{1}{2}\pi, \frac{8}{14}\pi, \frac{12}{14}\pi, \frac{13}{14}\pi\right\}$

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