Tenth Grade - Trigonometry

1) Which of the following is the best option for (tanx)(sinx) + cosx

- Both a and b
- cos x
- sec x
- None of these

2) Which of the following is the best option for (tan y / sec y)

- cos y
- tan y
- sin y
- sec y

3) Which of the following is the best option for ($\cot^2 x - 1/\sin^2 x$)

- -1
- 1
- 0
- 3

4) Which of the following is the best option for ($1 + \tan^2 x$) (1 + sinx) (1 – sinx)

- 3
- 1
- 7
- 0

5) Which of the following is the best option for ($\tan^2 x - 1/\cos^2 x$)

- -1
- 0
- 5
- 4

6) Which of the following is the best option for (sinx / 1 – cosx)

- 0
- cosec x + cot x
- 1
- cosec x – cot x

7) Which of the following is the best option for tanx - cotx

- $(2\sin^2x – 2 / \sin x \cos x)$
- $(2\sin^2x + 2 / \sin x \cos x)$
- $(2\sin^2x + 1 / \sin x \cos x)$
- $(2\sin^2x – 1 / \sin x \cos x)$

8) Which of the following is the best option for $(\sin x + \text{cosec } x)^2 + (\cos x + \sec x)^2$

- $7 + \tan^2x + \cot^2x$
- $7 + \tan^3x + \cot^2x$
- $7 + \tan^3x + \cot^3x$
- $7 - \tan^2x + \cot^2x$

9) Which of the following is the best option for (sec?x – $\sec^2x$)

- $\tan^2x$ - tan?x
- $\tan^3x$ + tan?x
- $\tan^2x$ + tan?x
- tan?x + tan?x

10) Which of the following is the best option for (1/secx – tanx)

- sec x + tan x
- -sec x + tan x
- -sec x - tan x
- sec x - tan x

11) Which of the following is the best option for cos?x – cos²x

- sin?x - sin²x
- sin?x - sin²x
- sin?x – sin³x
- sin?x – sin³x

12) Which of the following is the best option for (sec A + tan A) (1 – sin A)

- sec A
- cos A
- sin A
- tan A

13) Which of the following is the best option for (1+ sec A) / (sec A)

- (sec A + 1) / sec²A
- (sec A + 1) / sec³A
- (sec A + 1) / sec A
- (sec A - 1) / sec A

14) Which of the following is the best option for (cos A – sin A + 1) / (cos A + sin A – 1)

- -cosec A + cot A
- cosec A + cot A

- -cosec A - cot A
- cosec A - cot A

15) Which of the following is the best option for (cos x) × (tan x) × (cosec x)

- 1
- 0
- 9
- 4

16) Which of the following is the best option for $(1 / \sec^2 x) + (1 / \operatorname{cosec}^2 x)$

- 1
- 7
- -1
- 6

17) Which of the following is the best option for $\tan^2 x(\cos^2 x)$

- $1 - \cos^2 x$
- $1 - \tan^2 x$
- $1 - \sin^2 x$
- $1 - \operatorname{cosec}^2 x$

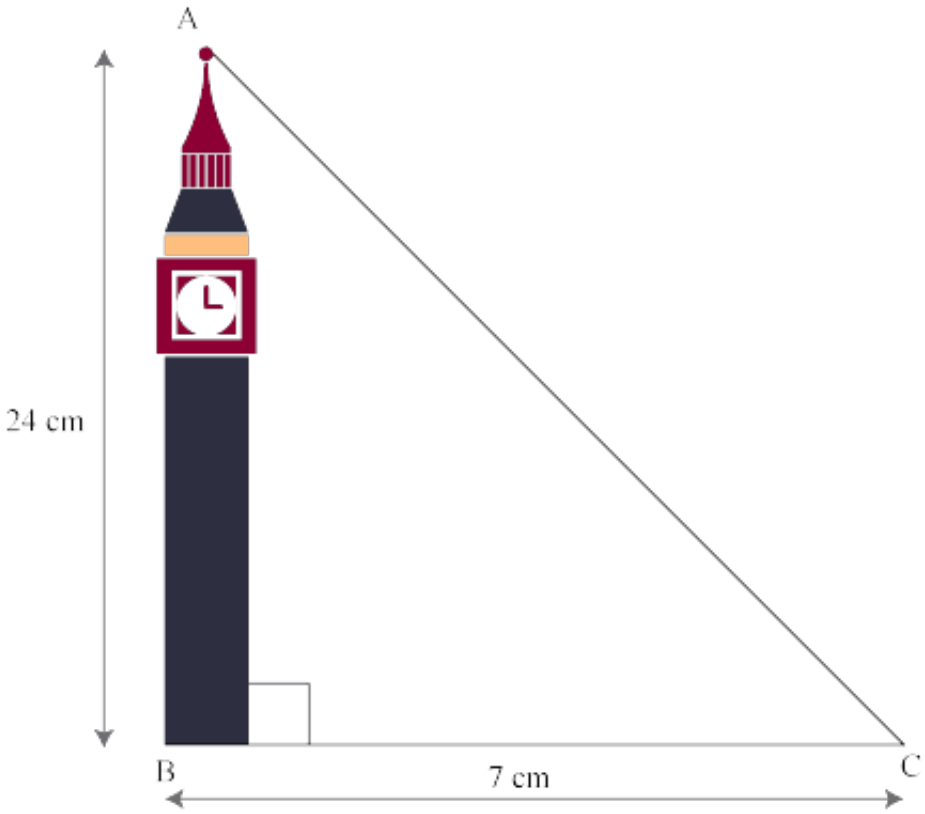
18) Which of the following is the best option for (1/cot?x) + (1/cot²x)

- 9
- sec?x - sec²x
- 1
- sec²x - sec?x

19) Which of the following is the best option for (1 + tan x) / (1 + cot x)

- -1
- sin x / cos x
- 1
- cos x / sin x

20) In ?ABC right angled at B, AB = 24 cm, BC = 7 m. Find sin A?



- 9/25
- 7/25
- 44/25
- 6/25

21) If sin A = 3/4, calculate cos A

- ?2/4
- ?3/4
- ?7/4

- ?5/4

22) If Given 15 cot A = 8, find sin A

- 11/17
- 12/17
- 15/17
- 16/17

23) Given sec ? = 13/12, calculate tan?

- 6/12
- 7/12
- 3/12
- 5/12

24) If cot ? = 7/8, evaluate (1 + sin ?) (1 - sin ?) / (1 + cos?) (1 - cos?)

- 59/64
- 29/64
- 69/64
- 49/64

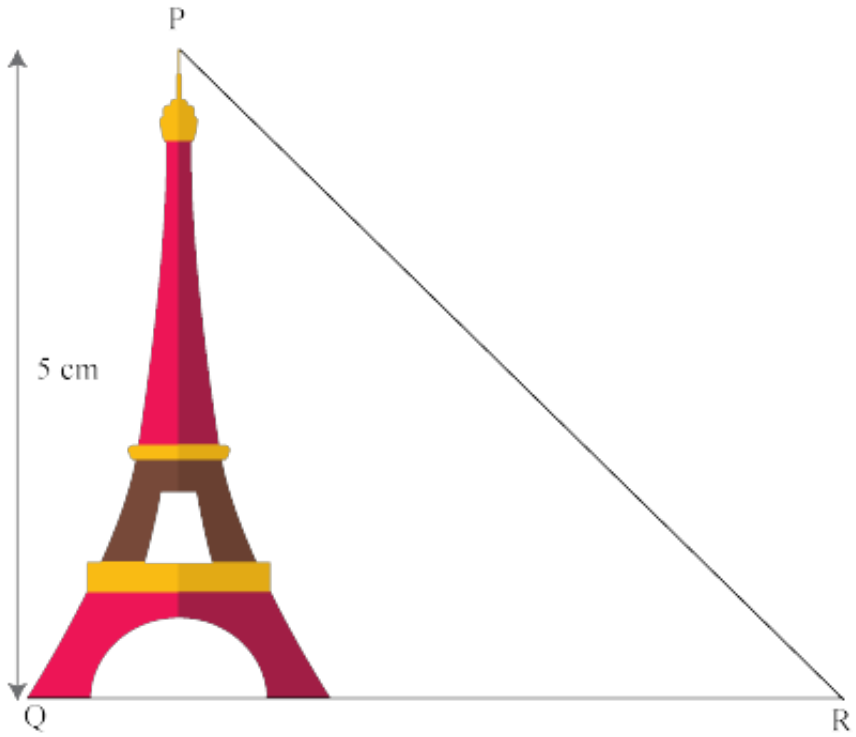
25) If 3cot A = 4, evaluate (1 – $\tan^2$A / 1 + $\tan^2$A)

- 8/25
- 9/25
- 5/25
- 7/25

26) In triangle ABC, right-angled at B, if tan A = 1 / ?3 find the value of cos A cos C – sin A sin C

- 1
- -5
- 4
- 0

27) In triangle PQR, right-angled at Q, PR + QR = 25 cm and PQ = 5 cm. Determine the values of sin P



- 12/15
- 11/13
- 13/12
- 12/13

28) sin 2A = 2sin A is true when A =?

- 60°
- 45°
- 0°
- 30°

29) Solve cos 48° - sin 42°

- 60°
- 45°
- 30°
- 0°

30) Solve cosec 31° - sec 59°

- 45°
- 0°
- 30°
- 70°