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

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

# Tenth Grade - Trigonometry

Both a and bsec xcos x

None of these
2) Which of the following is the best option for (tan y / sec y)
<ul> <li>cos y</li> <li>sec y</li> <li>tan y</li> <li>sin y</li> </ul>
3) Which of the following is the best option for $(\cot^2 x - 1/\sin^2 x)$
<ul> <li>-1</li> <li>0</li> <li>3</li> <li>1</li> </ul>
4) Which of the following is the best option for $(1 + \tan^2 x) (1 + \sin x) (1 - \sin x)$
<ul> <li>3</li> <li>0</li> <li>1</li> <li>7</li> </ul>

- -1
- 5
- 4
- 0
- 6) Which of the following is the best option for  $(\sin x / 1 \cos x)$ 
  - cosec x + cot x
  - 0
  - 1
  - cosec x cot x
- 7) Which of the following is the best option for tanx cotx
  - (2sin²x + 2 / sinx cosx )
  - (2sin<sup>2</sup>x 1 / sinx cosx )
  - (2sin<sup>2</sup>x 2 / sinx cosx )
  - (2sin<sup>2</sup>x + 1 / sinx cosx )
- 8) Which of the following is the best option for  $(\sin x + \csc x)^2 + (\cos x + \sec x)^2$ 
  - $7 + \tan^3 x + \cot^2 x$
  - $7 + \tan^2 x + \cot^2 x$
  - $7 + \tan^3 x + \cot^3 x$
  - 7 tan2x + cot2x
- 9) Which of the following is the best option for  $(\sec^2 x \sec^2 x)$ 
  - $tan^3x + tan?x$
  - tan?x + tan?x
  - tan2x tan?x
  - tan²x + tan?x

10) Which	of the fol	lowina is t	the best (	option for	$(1/\sec x - \tan x)$
,					( 1, 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

- -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 $\cos^2 x - \cos^2 x$

- sin?x sin²x
- sin?x sin³x
- sin?x sin²x
- $\sin^2 x \sin^3 x$

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

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

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

- (sec A 1) / sec A
- (sec A + 1) / sec<sup>3</sup>A
- (sec A + 1) / sec<sup>2</sup>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	Λ		+	Λ
•	-COSEC	н	+	(:())	н

•	-cosec	Δ-	cot A	١
•	-00360		COLF	٦

15) Which of the following is the best option for $(\cos x) \times (\tan x) \times (\cos x)$	15	) Which	of the follo	wina is the	e best opti	ion for (cos	$\times (x)$	(tan x) >	x (cosec x
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- 0
- 9
- 1
- 4

16) Which of the following is the best option for $(1 / \sec^2 x) + (1 / \csc^2 x)$
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- 1
- 6
- -1
- 7

# 17) Which of the following is the best option for tan²x(cos²x)

- 1 cos<sup>2</sup>x
- 1 sin<sup>2</sup>x
- 1 tan2x
- 1 cosec<sup>2</sup>x

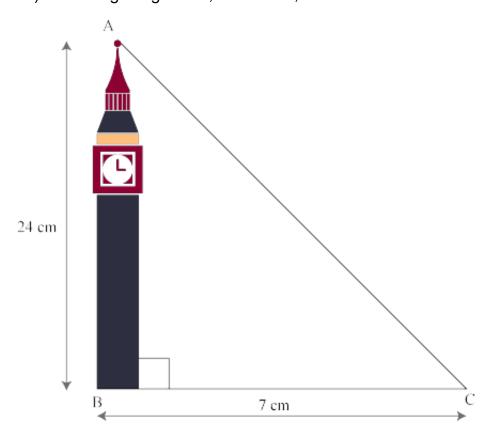
# 18) Which of the following is the best option for $(1/\cot^2 x) + (1/\cot^2 x)$

- 1
- sec?x sec²x
- 9
- sec2x sec?x

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

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

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



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

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

- ?7/4
- ?5/4
- ?2/4

• ?3/4

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

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

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

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

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

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

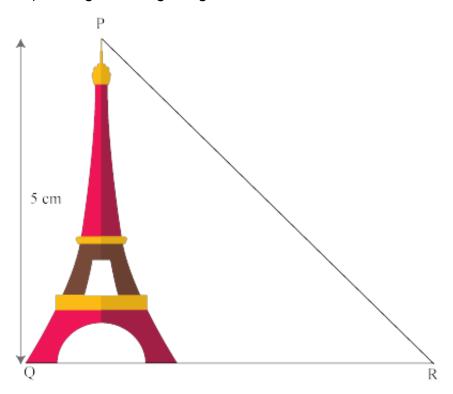
25) If 
$$3\cot A = 4$$
, evaluate  $(1 - \tan^2 A / 1 + \tan^2 A)$ 

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

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

- -5
- 4
- 1
- 0

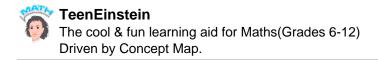
27) In triangle PQR, right-angled at Q, PR + QR = 25 cm and PQ = 5 cm. Determine the values of sin P



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

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

- 0°
- 30°
- 60°
- 45°



# 29) Solve cos 48° - sin 42°

- 60°
- 0°
- 45°
- 30°

# 30) Solve cosec 31° - sec 59°

- 70°
- 0°
- 30°
- 45°