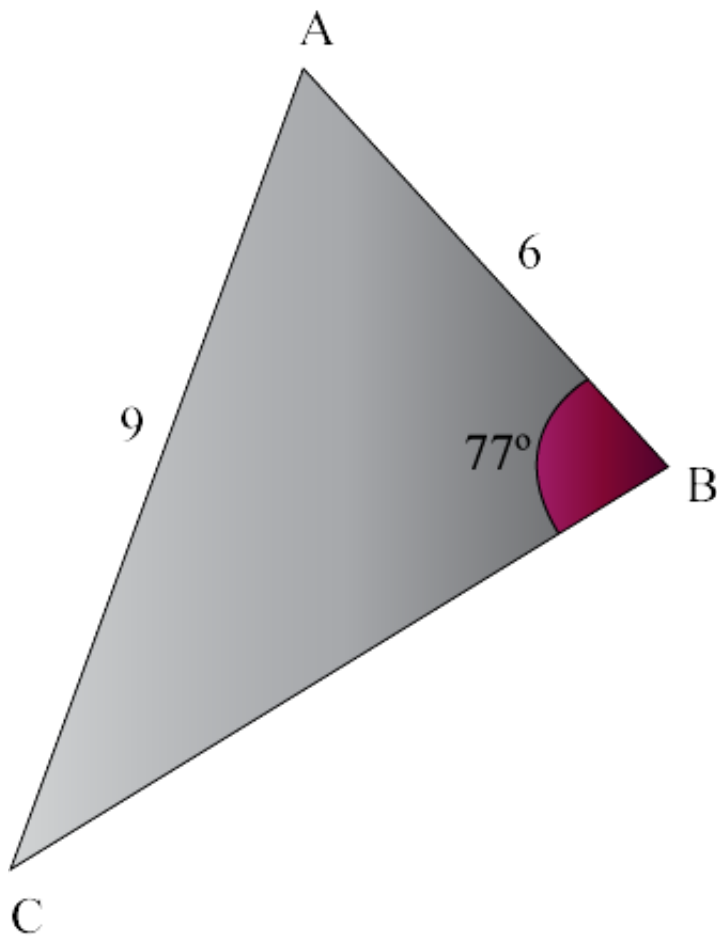Eleventh Grade - Trigonometry

1) What is the size of Angle C?

- 40.5°
- 80.5°
- 10.5°
- 20.5°

2) If tan x + cot x = 2, find the value of tan²x + cot²x

- 8
- 2
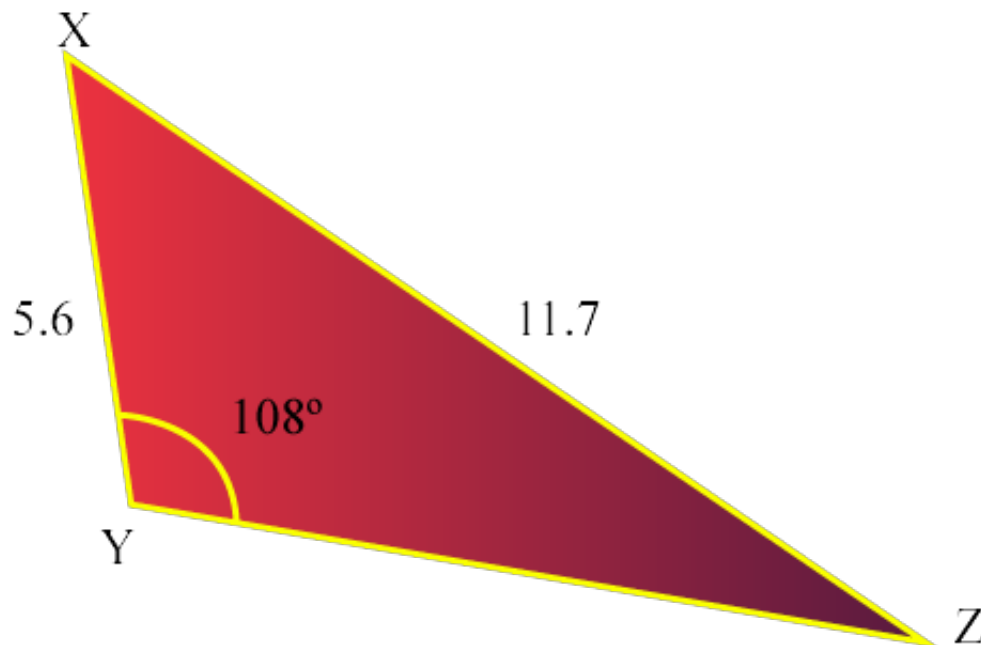- 4
- 5

Eleventh Grade - Trigonometry

3) If sin x + cos x = ?2sin (90 – x) determine cot x

- ?2 + 2
- ?2 - 2
- ?2 + 1
- ?2

4) What is the size of Angle X?

- 44.9°
- 54.9°
- 47.9°
- 64.9°

5) If sin x = 3/5, find the values of tanx

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

6) If cos x = 1/2, find the value of (2 secx / 1 + tan²x)

- 3
- 8
- 1
- 4

7) Evaluate tan 35 × tan 60 × tan 55 × tan 30

- 1
- 2
- 7
- 4

8) If cosec A = sec 25 find A

- 66
- 35
- 65
- 45

9) If sin A = cos 33, find A
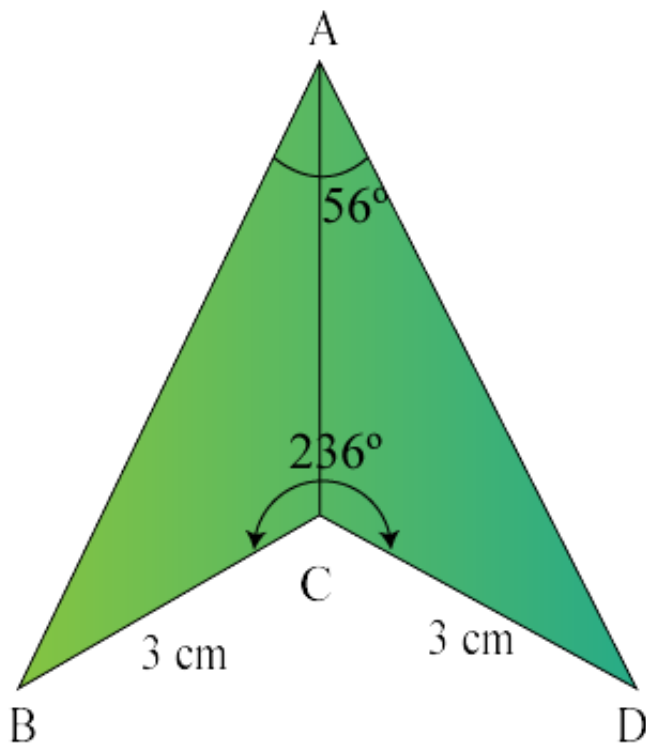
- 52
- 56
- 55
- 57

10) Find the value of ? (0° ? ? ? 90°), when sin²? - 3 sin? + 2 = 0
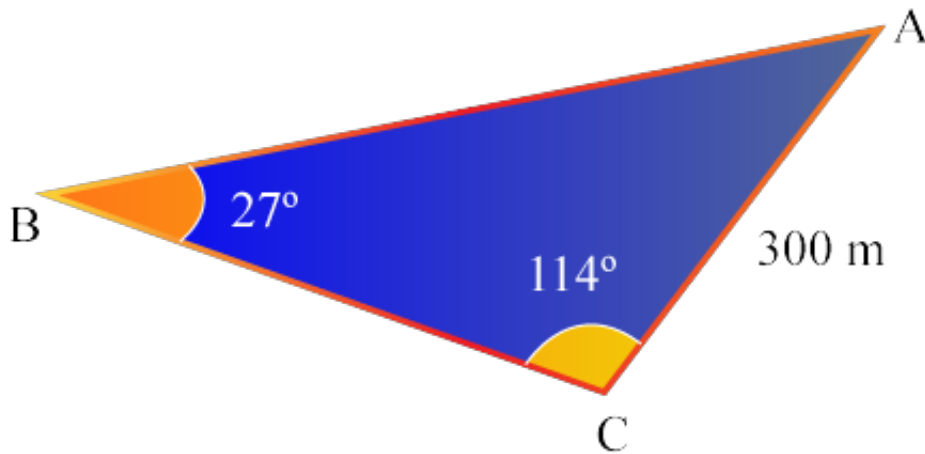
- 90

- 0
- 30
- 55

11) The diagram shows an arrowhead (re-entrant kite). Calculate the length of the side AB.

- 5.64 cm
- 5.84 cm
- 9.64 cm
- 6.64 cm

12) Farmer Jones has a triangular field ABC as shown in the following diagram: He wants to fence the field. Fencing is sold by the meter. How many meters of fencing does he need to purchase?

- 3,319.6 m
- 2,319.6 m
- 1,319.6 m
- 4,319.6 m

13) If 3 tan ? = 4, evaluate (3sin? + 2cos?) / (3sin? - 2cos?)

- 5
- 3
- 9
- 6

14) Express 1 + 2 sinA cosA as a perfect square.

- (cosA + sinA)²
- (cosA - sinA)²
- (sinA - cosA)²
- (sinA + cosA)²

15) When A and B be acute angles, sin A = 0.3 and cos B = 0.7 it is

- Possible
- Data inadequate
- Impossible
- None of these

16) If 0° ? A ? 90° can sin A = 0.4 and cos A = 0.5 be

- Impossible
- Data inadequate
- None of these
- Possible

17) Express in radians as well as in grades the fourth angle of a quadrilateral, which has three angles 46° 30' 10", 75° 44' 45", 123° 9' 35" respectively.

- 5
- 9
- 2
- 7

18) Convert the angle into centesimal system, (13751 / 120)°

- 157g 32` 41``
- 117g 12` 41``
- 147g 52` 41``
- 127g 32` 41``

19) Find the angle in radian through a pendulum swings if its length is 75cm and the tip describes an arc of length 10 cm

- 6/15
- 4/15
- 9/15
- 2/15

20) Find the angle in radian through a pendulum swings if its length is 75cm and the tip describes an arc of length 15cm.

- 1 / 5
- 4 / 5
- 2 / 5
- 3 / 5

21) Find the angle in radian through a pendulum swings if its length is 75cm and the tip describes an arc of length 21cm

- 8 / 25
- 6 / 25
- 8 / 15
- 7 / 25

22) If G, D, denote respectively, the number of grades, degrees and radians in an angle then G/100 = D/90 =?

- 45
- 21
- 76
- 54

23) If G, D, denote respectively, the number of grades, degrees and radians in an angle then G - D =?

- 350
- 346
- 201
- 654

24) Large hand of a clock is 21cm long. How much distance does its extremity move in 20 minutes?

- 96
- 88
- 46
- 67

25) Find the angle between the minute hand and hour hand of a click when the time is 7.20?

- 700?
- 500?
- 100?
- 800?

26) If tan = -2, find the values of the trigonometric ratios?

- -1 / 2
- -3 / 2
- 1 / 2
- 3 / 2

27) Which of the following statement is correct for sin = x + 1/x is

- Not possible for real x
- Possible for imaginary x
- Not possible for imaginary x
- Possible for real x

28) Whether the equation $2 \sin^2 - \cos + 4 = 0$ is

- None of these
- Can't determine
- Possible
- Not possible

29) Solve for a and c in the given triangle. Also find the area of the ABC.

- 283
- 683
- 783
- 183

30) If A, B, A + B, A - B are positive acute angles, find the values of A and B from the equations: sin (A - B) = 1/2, cos (A + B) = 1/2

- (45, 15)
- (60, 15)
- (30, 25)
- (25, 10)