

GRE Geometry Practice Test 8

Question 1

An acute Isosceles triangle has two sides with length a and one side length b . The length of side $a = \frac{3}{12}$ ft. If the length of $b = a \times \frac{1}{3}$, what is the perimeter of the triangle?

Possible Answers:

$\frac{1}{4}$ foot

7 inches

$\frac{9}{12}$ foot

$\frac{3}{4}$ foot

6 inches



Correct answer:

7 inches

Question 2

An acute Isosceles triangle has two sides with length a and one side length b . The length of side $a = 8$ inches. The length of side $b = a \times \frac{1}{4}$. Find the perimeter of the triangle.

Possible Answers:

12 inches

18 inches

14 inches

13 inches

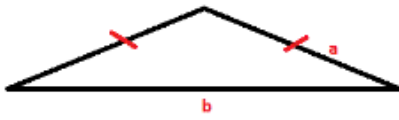
19 inches



Correct answer:

18 inches

Question 3



The obtuse Isosceles triangle shown above has two sides with length a and one side length b . The length of side $a = 43$ inches. Side length $b = 2a$. Find the perimeter of the triangle.

Possible Answers:

129 inches

$15\sqrt{2}$ inches

84 inches

172 inches

86 inches



Correct answer:

172 inches

Question 4

A triangle has two sides with length a and one side length b . The length of side $b = \frac{1}{4}$ yard. If the length of $a = 2$ the length of side b , what is the perimeter of the triangle?

Possible Answers:

$\frac{7}{12}$ yard

$\frac{1}{4}$ yard

$\frac{1}{3}$ yard

$\frac{5}{4}$ yard

$\frac{6}{12}$ yard



Correct answer:

$\frac{5}{4}$ yard

Question 5

An isosceles triangle has an angle of 110° . Which of the following angles could also be in the triangle?

Possible Answers:

110

20

35

55

90



Correct answer:

35

Question 6

An isosceles triangle ABC is laid flat on its base. Given that $\angle B$, located in the lower left corner, is 84 degrees, what is the measurement of the top angle, $\angle A$?

Possible Answers:

84

12

42

20

96



Correct answer: 12

Question 7

An isosceles triangle has one obtuse angle that is 112° . What is the value of one of the other angles?

Possible Answers:

68°

90°

34°

112°

45°



Correct answer:

34°

Question 8



The obtuse Isosceles triangle shown above has two sides with length a and one side length b . The length of side $a = 9$. The length of side $b = 3a$. Find the perimeter of the triangle.

Possible Answers:

$2\sqrt{18}$

43

45

36

27



Correct answer:

45

Question 9

The three angles in a triangle measure $3x$, $4x + 10$, and $8x + 20$. What is x ?

Possible Answers:

10

20

30

25

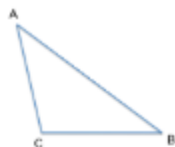
15



Correct answer:

10

Question 10



In triangle ABC, $AB=6$, $AC=3$, and $BC=4$.

Quantity A

Quantity B

angle C

the sum of angle A and angle B

Possible Answers:

Quantity A and B are equal

Quantity B is greater

The relationship cannot be determined from the information given.

Quantity A is greater



Correct answer:

Quantity A is greater