

GRE Geometry Practice Test 6

1)

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

Possible Answers:

68°

34°

45°

90°

112°

2)



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:

27

43

36

45

$2\sqrt{18}$

3)

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

Possible Answers:

15

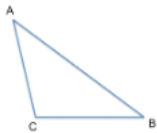
30

10

20

25

4)



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

5)



In the figure above, what is the value of angle x?

Possible Answers:

105°

115°

100°

85°

110°

6)

What is the area of a triangle with side lengths 18, 24, and 30?

Possible Answers:

196

280

140

216

342

7)

You are asked which triangle is larger. You are only told that they have the same base length and that one contains at least one 3 inch side and the other contains at least one 4 inch side. Determine whether the left or right triangle is larger.



Possible Answers:

The right triangle is larger

The triangles are equal

The left triangle is larger

It is impossible to determine from the given information.

8)

A triangle has sides 3, 5, and x . What can side x not be equal to?

Possible Answers:

3

6

4

9

9)

Which of these side lengths cannot form a triangle?

Possible Answers:

5, 5, 5

7, 7, 12

25, 37, 66

6, 9, 14

120, 205, 310

10)

The sides of a triangle are 6, 12, and an integer x . How many possible values does x have?

Possible Answers:

124

6

11

1

2