ANGLES AND TRIANGLES, SINE LAW AND COSINE LAW - PRACTICE TEST | NEW BRUNSWICK FOUNDATIONS OF MATHEMATICS 110 · UNIT B · 25 QUESTIONS

Angles and Triangles, Sine Law and Cosine Law — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A triangle has angles 50 degrees and 60 degrees. The third angle, in degrees, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **A triangle has sides 3 and 4 enclosing a 90 degree angle. The third side is**

ANSWER _____

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3 **A triangle has sides 5 and 5 enclosing a 60 degree angle. The third side² is**

ANSWER _____

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4 **A triangle has sides 3, 4, and 5. Its largest angle, in degrees, is**

ANSWER _____

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5 **In a triangle, a side of length 10 is opposite a 30 degree angle. The side opposite a 90 degree angle in the same triangle, by the sine law, is**

ANSWER _____

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6 **A triangle with all angles less than 90 degrees is**

A acute

B obtuse

C right

D isosceles only

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7 **An obtuse triangle has one angle**

A equal to 90 degrees

B less than 90 degrees only

C greater than 90 degrees

D equal to 180 degrees

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8 **In any triangle, the longest side is opposite the**

A smallest angle

B largest angle

C right angle only

D base angle only

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9 **The ambiguous case of the sine law can give**

- A no angles at all
- B two possible triangles
- C only right triangles
- D only equilateral triangles

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10 **The angles of any triangle add to**

- A 180 degrees
- B 90 degrees
- C 360 degrees
- D 270 degrees

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11 **The cosine law is used when two sides and the**

- **A** opposite angle only is known
- **B** area only is known
- **C** perimeter only is known
- **D** included angle are known

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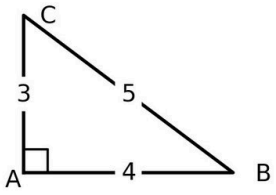
12 **The diagram shows a right triangle with legs 3 and 4 and hypotenuse 5. The angle at B is opposite the side of length**



- **A** 3
- **B** 4
- **C** 5
- **D** 7

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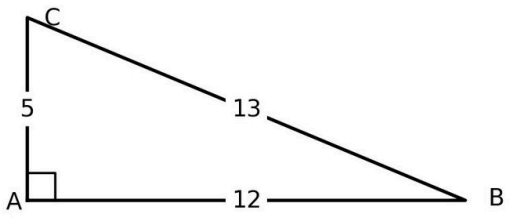
13 **The diagram shows a right triangle with legs 5 and 12 and hypotenuse 13. The side opposite angle B has length**



- **A** 12
- **B** 5
- **C** 13
- **D** 17

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14 **The sine law can solve a triangle given**

- **A** three sides only with no angles
- **B** area only
- **C** perimeter only
- **D** two angles and a side

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15 **The sine law relates sides of a triangle to the**

- A cosines of adjacent angles
- B tangents of all angles
- C sines of opposite angles
- D areas of squares

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16 **A triangle has angles 35 degrees and 85 degrees. The third angle, in degrees, is**

ANSWER _____

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17 **A triangle has sides 5 and 12 enclosing a 90 degree angle. The third side is**

ANSWER _____

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18 **A triangle has sides 4 and 6 enclosing a 60 degree angle. The third side² is**

ANSWER _____

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19 **A triangle has sides 5, 12, and 13. Its largest angle, in degrees, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

20 **In a triangle, a side of length 20 is opposite a 30 degree angle. The side opposite a 90 degree angle in the same triangle, by the sine law, is**

ANSWER _____

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21 **A triangle has angles 55 degrees and 65 degrees. The third angle, in degrees, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **A triangle has sides 6 and 8 enclosing a 90 degree angle. The third side is**

ANSWER

Understand It with Pulse | Flag a mistake

23 **A triangle has sides 7 and 7 enclosing a 60 degree angle. The third side² is**

ANSWER

Understand It with Pulse | Flag a mistake

24 **A triangle has sides 8, 15, and 17. Its largest angle, in degrees, is**

ANSWER

Understand It with Pulse | Flag a mistake

25 **In a triangle, a side of length 12 is opposite a 30 degree angle. The side opposite a 90 degree angle in the same triangle, by the sine law, is**

ANSWER

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	70	**10.**	A	**19.**	90
2.	5	**11.**	D	**20.**	40
3.	25	**12.**	A	**21.**	60
4.	90	**13.**	B	**22.**	10
5.	20	**14.**	D	**23.**	49
6.	A	**15.**	C	**24.**	90
7.	C	**16.**	60	**25.**	24
8.	B	**17.**	13		
9.	B	**18.**	28		

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