NEWFOUNDLAND AND LABRADOR MATHEMATICS 2202 · UNIT B · 25 QUESTIONS

Trigonometry and Scale Diagrams — 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 **In a right triangle, the hypotenuse is 20 and an angle is 30°. The opposite side, to one decimal place, is**



ANSWER

Understand It with Pulse | Flag a mistake

2 **On a scale drawing, 1 cm represents 3 m. A length of 5 cm on the drawing represents, in metres, a real length of**

ANSWER

Understand It with Pulse | Flag a mistake

3 **From 40 m away, the angle of elevation to the top of a pole is 60°. The height of the pole, to one decimal place, in metres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

4 **The right triangle shown has legs 5 and 12. Its hypotenuse is**

A 17

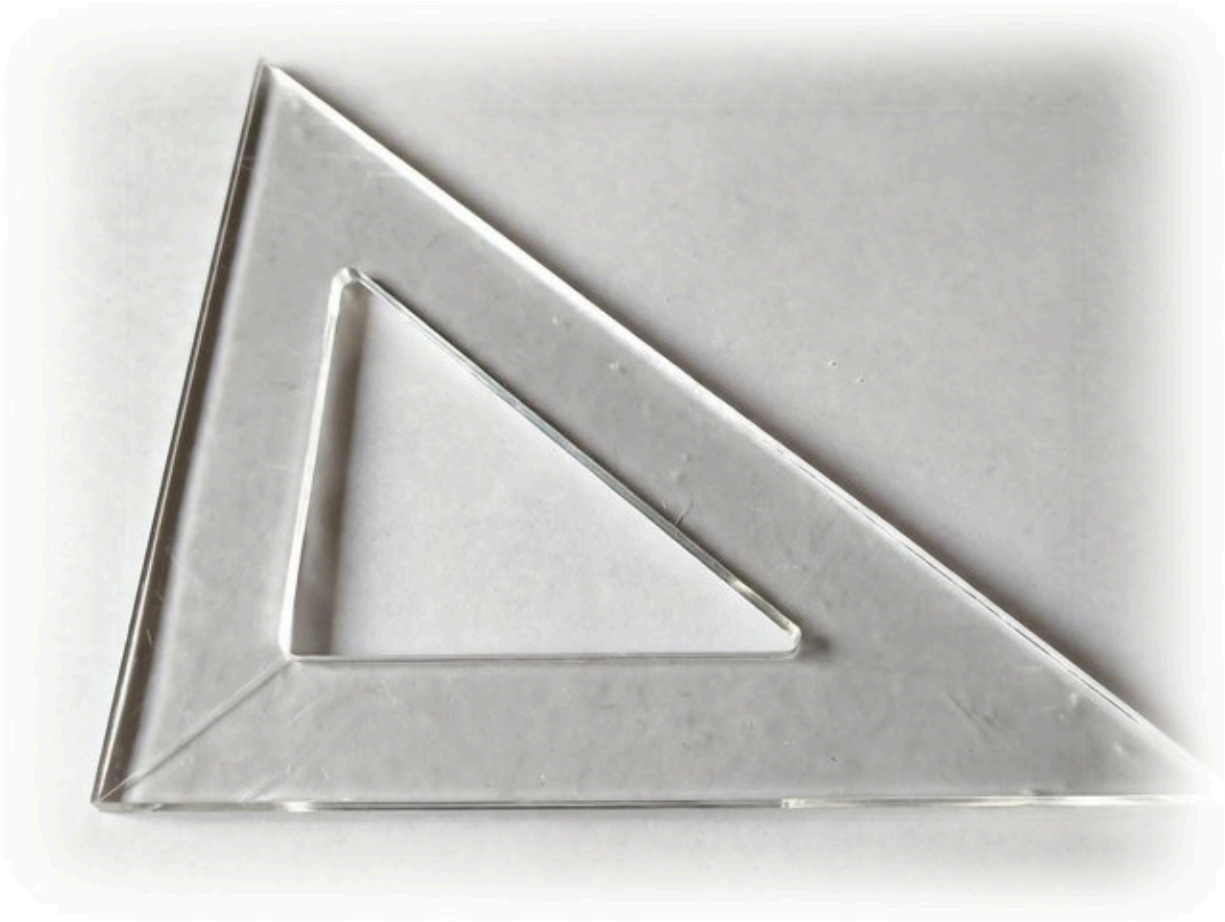
B 10

C 60

D 13

Understand It with Pulse | Flag a mistake

5 **Consider the meaning of the term. In a right triangle, sine of an angle equals**



A opposite ÷ hypotenuse

B adjacent ÷ hypotenuse

C opposite ÷ adjacent

D hypotenuse ÷ opposite

Understand It with Pulse | Flag a mistake

6 **A right triangle has hypotenuse 17 and one leg 8. The other leg is**

ANSWER _____

Understand It with Pulse | Flag a mistake

7 **Check the definition first. If lengths are scaled by a factor of 2, areas are scaled by a factor of**



A 2

B 8

C 4

D 6

Understand It with Pulse | Flag a mistake

8 **A ship sails 80 km at 30° from north. Its northward distance, to one decimal place, in kilometres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

9 **On a map with scale 1 to 25000, a distance of 8 cm represents, in kilometres, a real distance of**

ANSWER _____

Understand It with Pulse | Flag a mistake

10 **A right triangle has opposite side 3 and adjacent side 4 for an acute angle. That angle, to the nearest degree, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **Think about the rule. A scale diagram keeps the shape of the original but changes its**



A angles

B shape

C size

D number of sides

Understand It with Pulse | Flag a mistake

12 **A 1 m pole casts a 2 m shadow. At the same time, a tree casts a 10 m shadow. The height of the tree, in metres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **A right triangle has legs 9 and 12. Its hypotenuse is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **A rectangle measures 3 by 5 cm on a scale drawing with scale factor 2. The perimeter of the real rectangle, in centimetres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

15 **In a right triangle, the hypotenuse is 14 and an angle is 45°. The opposite side, to one decimal place, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 **On a scale drawing, 1 cm represents 5 m. A length of 4 cm on the drawing represents, in metres, a real length of**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **From 20 m away, the angle of elevation to the top of a pole is 45°. The height of the pole, to one decimal place, in metres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **Apply the concept. The right triangle shown has legs 5 and 12. Its hypotenuse is**

A 17

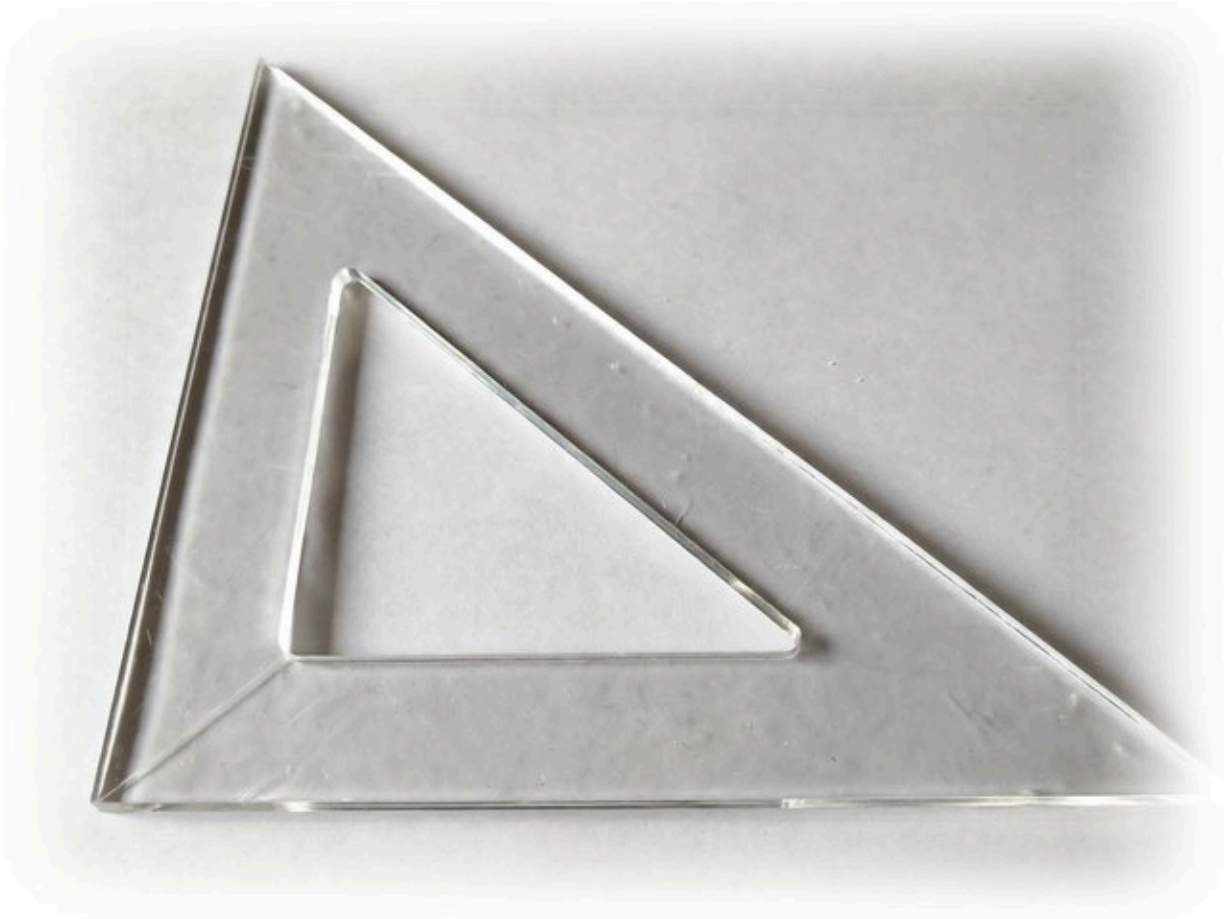
B 13

C 10

D 60

Understand It with Pulse | Flag a mistake

19 **Consider the concept in general. In a right triangle, sine of an angle equals**



A adjacent ÷ hypotenuse

B opposite ÷ adjacent

C opposite ÷ hypotenuse

D hypotenuse ÷ opposite

Understand It with Pulse | Flag a mistake

20 **A right triangle has hypotenuse 10 and one leg 6. The other leg is**

ANSWER _____

Understand It with Pulse | Flag a mistake

21 **Think about the principle. If lengths are scaled by a factor of 2, areas are scaled by a factor of**



A 4

B 2

C 8

D 6

Understand It with Pulse | Flag a mistake

22 **A ship sails 100 km at 60° from north. Its northward distance, to one decimal place, in kilometres, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **On a map with scale 1 to 20000, a distance of 10 cm represents, in kilometres, a real distance of**

ANSWER _____

Understand It with Pulse | Flag a mistake

24 **A right triangle has opposite side 8 and adjacent side 15 for an acute angle. That angle, to the nearest degree, is**

ANSWER _____

Understand It with Pulse | Flag a mistake

25 **Review the principle. A scale diagram keeps the shape of the original but changes its**

A size

B angles

C shape

D number of sides

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	10	**10.**	37	**19.**	C
2.	15	**11.**	C	**20.**	8
3.	69.3	**12.**	5	**21.**	A
4.	D	**13.**	15	**22.**	50
5.	A	**14.**	32	**23.**	2
6.	15	**15.**	9.9	**24.**	28
7.	C	**16.**	20	**25.**	A
8.	69.3	**17.**	20		
9.	2	**18.**	B		

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