ALBERTA MATH 20-2 · UNIT 4 · 10 QUESTIONS

# Trigonometry — 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** **Two sides of a triangle are 10 cm and 14 cm, and the angle between them is 63°. The length of the third side, to the nearest tenth of a centimetre, is**

- A 13.0 cm
- B 17.2 cm
- C 20.6 cm
- D 11.4 cm

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**2** **A hot-air balloon is 80 m directly above the ground. From the balloon, the angle of depression to a landing marker is 17°. The horizontal distance, in metres to the nearest tenth, from the point below the balloon to the marker is _____**

ANSWER _____

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**3** **A triangle has two sides of 7 cm and 18 cm with an included angle of 39°. The area of the triangle, to the nearest tenth of a cm², is**

- **A** 49.0 cm²
- **B** 39.6 cm²
- **C** 79.3 cm²
- **D** 63.0 cm²

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**4** **Triangle ABC is shown. AB = 9 cm, AC = 6 cm, and BC = 12 cm. The measure of the angle opposite BC, to the nearest tenth of a degree, is**

- **A** 75.5°
- **B** 97.2°
- **C** 82.8°
- **D** 104.5°

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**5** In △ ABC, ∠ A = 29°, ∠ B = 74°, and side a = 9 cm. The length of side b, in centimetres to the nearest tenth, is _____

ANSWER _____

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**6** In △ ABC, ∠ A = 40°, side a = 6 cm, and side b = 14 cm. The number of different triangles that can be drawn with these measurements is

A 0

B 1

C 2

D 3

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**7** **A triangular garden plot has two sides of 8 m and 11 m meeting at an angle of 95°. The length of the third side, to the nearest tenth of a metre, is**

- **A** 13.0 m
- **B** 13.6 m
- **C** 14.2 m
- **D** 19.0 m

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**8** **A person whose eyes are 1.7 m above the ground stands 30 m from a building. The angle of elevation from eye level to the top of the building is 36°. The height of the building, to the nearest tenth of a metre, is**

- **A** 21.8 m
- **B** 17.6 m
- **C** 23.5 m
- **D** 25.2 m

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**9** In △ ABC, ∠ A = 102°, ∠ B = 31°, and side a = 28 cm. The length of side b, to the nearest tenth of a centimetre, is

- **A** 14.7 cm
- **B** 53.2 cm
- **C** 16.9 cm
- **D** 12.3 cm

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**10** Points A and B on the shore of a pond are 40 m apart. A tree T stands on the far shore. At A, the angle between B and T is 58°, and at B, the angle between A and T is 71°. The distance, in metres to the nearest tenth, from A to the tree is _____

ANSWER _____

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## ANSWER KEY

| | | | | | |
|---|---|---|---|---|---|
| **1.** | A | **5.** | 17.8 | **9.** | A |
| **2.** | 261.7 | **6.** | A | **10.** | 48.7 |
| **3.** | B | **7.** | C | | |
| **4.** | D | **8.** | C | | |

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