NUNAVUT MATHEMATICS 20-1 · UNIT 2 · 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 hikers leave the same trailhead C at the same time. One walks 3.6 km to A and the other walks 5.2 km to B, and the angle between their paths is 118°. The distance between the two hikers, to the nearest tenth of a kilometre, is**

- **A** 6.4 km
- **B** 8.1 km
- **C** 7.6 km
- **D** 8.8 km

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2 In △ ABC, ∠ A = 30°, side a = 10 cm, and side b = 20 cm. The number of different triangles that can be constructed is

- **A** Two
- **B** One
- **C** Zero
- **D** Cannot be determined

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3 An angle θ in standard position is in Quadrant III, and $\cos\theta = -\frac{7}{25}$. The exact value of tanθ is

- **A** $\frac{7}{24}$
- **B** $-\frac{24}{7}$
- **C** $\frac{24}{25}$
- **D** $\frac{24}{7}$

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4 **The sides of a triangular sail measure 5 m, 7 m, and 9 m. The measure of the largest angle of the sail, to the nearest degree, is _____**

ANSWER _____

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5 **From point A on level ground, the angle of elevation of the top of a flagpole is 32°. From point B, on the opposite side of the flagpole and in line with A, the angle of elevation is 48°. Points A and B are 60 m apart. The height of the flagpole, to the nearest metre, is**

A 24 m

B 18 m

C 30 m

D 21 m

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6 In $\triangle ABC$, $\angle A = 42°$, side $a = 13$ cm, and side $b = 16$ cm. Two different triangles are possible. The smaller possible measure of angle B, to the nearest degree, is

- **A** 48°
- **B** 62°
- **C** 125°
- **D** 55°

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7 An angle θ in standard position, $0° \le \theta < 360°$, satisfies $\cos\theta = -\frac{1}{2}$ and θ is in Quadrant II. The measure of θ, in degrees, is ____

ANSWER _____

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8 **A parallelogram has sides of 6 cm and 11 cm, and one diagonal measures 9 cm. The measure of the obtuse angle of the parallelogram, to the nearest degree, is**

- **A** 125°
- **B** 55°
- **C** 118°
- **D** 132°

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9 **The right triangle ABC shown has A at a surveyor's instrument, 55 m from the base of a building and 1.7 m above the ground. The angle of elevation from the instrument to the top of the building is 29°. The height of the building, to the nearest tenth of a metre, is**

- **A** 30.5 m
- **B** 31.4 m
- **C** 33.9 m
- **D** 32.2 m

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10 **Points A and B are on the same side of a canyon, 120 m apart. A landmark C is on the opposite side. In △ ABC, ∠ A = 58° and ∠ B = 74°. The distance from point A to the landmark, to the nearest metre, is _____**

ANSWER

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ANSWER KEY

1. C
2. B
3. D
4. 96
5. A
6. D
7. 120
8. A
9. D
10. 155

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