# Pythagorean Theorem and Right-Triangle Trigonometry — Practice Test

**Saskatchewan Workplace and Apprenticeship Mathematics 10 • 10 questions**

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 ladder of length 25 m leans against a wall at 60 degrees to the ground. The height it reaches, in metres, is approximately**

- **A** 23.7
- **B** 21.7
- **C** 19.7
- **D** 25

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**2** In a right triangle, the side adjacent to an acute angle is 12 and the hypotenuse is 15. The cosine of the angle is

- **A** $\frac{4}{5}$
- **B** $\frac{3}{5}$
- **C** $\frac{4}{3}$
- **D** $\frac{3}{4}$

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**3** In a right triangle, the side opposite an acute angle is 3 and the side adjacent is 4. The tangent of the angle is

- **A** $\frac{4}{3}$
- **B** $\frac{3}{5}$
- **C** $\frac{4}{5}$
- **D** $\frac{3}{4}$

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4 **A right triangle has hypotenuse 10 m and one leg 6 m. The other leg, in metres, is**

ANSWER _____

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5 **A ladder of length 20 m leans against a wall at 30 degrees to the ground. The height it reaches, in metres, is approximately**

A 12

B 8

C 20

D 10

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**6** In a right triangle, the side adjacent to an acute angle is 8 and the hypotenuse is 10. The cosine of the angle is

- **A** $\frac{3}{5}$
- **B** $\frac{4}{5}$
- **C** $\frac{4}{3}$
- **D** $\frac{3}{4}$

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**7** In a right triangle, the side opposite an acute angle is 6 and the side adjacent is 8. The tangent of the angle is

- **A** $\frac{4}{3}$
- **B** $\frac{3}{4}$
- **C** $\frac{3}{5}$
- **D** $\frac{4}{5}$

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**8** **A ladder of length 15 m leans against a wall at 45 degrees to the ground. The height it reaches, in metres, is approximately**

- **A** 10.6
- **B** 12.6
- **C** 8.6
- **D** 15

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**9** **In a right triangle, the side adjacent to an acute angle is 24 and the hypotenuse is 30. The cosine of the angle is**

- **A** $\frac{3}{5}$
- **B** $\frac{4}{3}$
- **C** $\frac{4}{5}$
- **D** $\frac{3}{4}$

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**10** **In a right triangle, the side opposite an acute angle is 16 and the side adjacent is 30. The tangent of the angle is**

A $\frac{8}{15}$

B $\frac{15}{8}$

C $\frac{8}{17}$

D $\frac{15}{17}$

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## ANSWER KEY

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

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