The next chapter is \*\*Introduction to Trigonometry\*\*. Here's a 20-question multiple-choice quiz based on the concepts from this chapter.

### Introduction to Trigonometry Quiz

1. If sin(θ) = 1/2, then θ could be:

A) 30°

B) 45°

C) 60°

D) 90°

2. The value of cos(90° θ) is:

A) sin(θ)

B) cos(θ)

C) -sin(θ)

D) -cos(θ)

3. What is the tan(θ) if sin(θ) = 3/5 and cos(θ) = 4/5?

A) 3/4

B) 4/3

C) 5/3

D) 3/5

4. For an acute angle θ, which ratio is correct for cosec(θ)?

A) 1/sin(θ)

B) 1/cos(θ)

C) 1/tan(θ)

D) sin(θ)

5. If tan(θ) = 1, then θ equals:

A) 45°

B) 30°

C) 60°

D) 90°

6. The trigonometric ratio that represents the ratio of the side opposite to the angle to the hypotenuse is:

A) Sine

B) Cosine

C) Tangent

D) Cotangent

7. If cot(θ) = 1/√3, then θ is:

A) 30°

B) 45°

C) 60°

D) 90°

8. The value of sec(0°) is:

A) 0

B) 1

C) Undefined

D) Infinity

9. What is the value of cosec(30°)?

A) 1/2

B) √3/2

C) 2

D) 2/√3

10. The Pythagorean identity sin²(θ) + cos²(θ) equals:

A) 0

B) 1

C) tan(θ)

D) sec(θ)

11. The value of tan(45°) is:

A) 1

B) 0

C) √2

D) √3

12. What is the sin(90° θ)?

A) cos(θ)

B) sin(θ)

C) -cos(θ)

D) -sin(θ)

13. If cos(θ) = 12/13, what is sin(θ) for an acute θ?

A) 5/13

B) 12/13

C) 5/12

D) √169/13

14. If sec(θ) = 13/5, then cos(θ) is:

A) 5/13

B) 12/13

C) 13/12

D) 5/12

15. What is the value of cosec(θ) if sin(θ) = 4/5?

A) 5/4

B) 4/3

C) 3/4

D) 1/4

16. The trigonometric ratio for the side adjacent to the angle to the hypotenuse is:

A) Sine

B) Cosine

C) Tangent

D) Secant

17. If θ is an acute angle and sin(θ) = cos(θ), then θ is:

A) 30°

B) 45°

C) 60°

D) 90°

18. The value of cot(θ) when tan(θ) = √3 is:

A) 1/√3

B) √3

C) 1/3

D) 3

19. If the hypotenuse of a right-angled triangle is 10 cm and one of the angles is 30°, the opposite side is:

A) 5 cm

B)

10 cm

C) 5√3 cm

D) 10/√3 cm

20. The reciprocal of tan(θ) is:

A) cot(θ)

B) sec(θ)

C) cosec(θ)

D) sin(θ)

Here is the answer key for the Introduction to Trigonometry quiz:

1. A) 30°

2. A) sin(θ)

3. A) 3/4

4. A) 1/sin(θ)

5. A) 45°

6. A) Sine

7. C) 60°

8. B) 1

9. C) 2

10. B) 1

11. A) 1

12. A) cos(θ)

13. A) 5/13

14. A) 5/13

15. A) 5/4

16. B) Cosine

17. B) 45°

18. A) 1/√3

19. A) 5 cm

20. A) cot(θ)

If you're ready for the next chapter, just let me know and we'll continue with the quiz for "Some Applications of Trigonometry".