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 $\sin^2(\theta) + \cos^2(\theta)$ equals:
   A) 0
   B) 1
   C) $\tan(\theta)$
   D) $\sec(\theta)$

11. The value of tan(45°) is:
   A) 1
   B) 0
   C) √2
   D) √3

12. What is the sin(90° θ)?
   A) $\cos(\theta)$
   B) $\sin(\theta)$
   C) $-\cos(\theta)$
   D) $-\sin(\theta)$

13. If $\cos(\theta) = 12/13$, what is $\sin(\theta)$ for an acute θ?
   A) 5/13
   B) 12/13
   C) 5/12
   D) √169/13

14. If $\sec(\theta) = 13/5$, then $\cos(\theta)$ is:
   A) 5/13
   B) 12/13
   C) 13/12
   D) 5/12

15. What is the value of $\csc(\theta)$ if $\sin(\theta) = 4/5$?
   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 $\sin(\theta) = \cos(\theta)$, then θ is:
   A) 30°
   B) 45°
   C) 60°
   D) 90°

18. The value of $\cot(\theta)$ when $\tan(\theta) = √3$ 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".