

1. How do you use an oscilloscope?
  - a. To measure the frequency of a signal
  - b. To measure the amplitude of a signal
  - c. To measure the phase of a signal
  - d. To measure the duty cycle of a signal
2. How do you set up an oscilloscope?
  - a. Connect the ground clip to the ground of the circuit
  - b. Connect the probe to the signal you want to measure
  - c. Set the timebase to the desired time per division
  - d. Set the vertical scale to the desired volts per division
3. How do you interpret the results of an oscilloscope measurement?
  - a. The frequency of the signal is the reciprocal of the time per division
  - b. The amplitude of the signal is the volts per division
  - c. The phase of the signal is the time delay between the rising and falling edge of the signal
  - d. The duty cycle of the signal is the percentage of time the signal is high
4. What is the purpose of using an oscilloscope?
  - a. To measure the frequency of a signal
  - b. To measure the amplitude of a signal
  - c. To measure the phase of a signal
  - d. To measure the duty cycle of a signal
5. How do you use an oscilloscope to measure the frequency of a signal?
  - a. Set the timebase to the reciprocal of the desired frequency
  - b. Set the vertical scale to the reciprocal of the desired frequency
  - c. Set the trigger to the rising edge of the signal
  - d. Set the probe to the AC coupling
6. How do you use an oscilloscope to measure the amplitude of a signal?
  - a. Set the timebase to the reciprocal of the desired amplitude
  - b. Set the vertical scale to the desired amplitude
  - c. Set the trigger to the falling edge of the signal

- d. Set the probe to the DC coupling
7. How do you use an oscilloscope to measure the phase of a signal?
- a. Set the timebase to the reciprocal of the desired phase
  - b. Set the vertical scale to the reciprocal of the desired phase
  - c. Set the trigger to the rising edge of the signal
  - d. Set the probe to the AC coupling
8. How do you use an oscilloscope to measure the duty cycle of a signal?
- a. Set the timebase to the reciprocal of the desired duty cycle
  - b. Set the vertical scale to the reciprocal of the desired duty cycle
  - c. Set the trigger to the falling edge of the signal
  - d. Set the probe to the DC coupling
9. What is the relationship between the timebase and the frequency of a signal?
- a. The timebase is the reciprocal of the frequency
  - b. The timebase is the square root of the frequency
  - c. The timebase is the square root of the reciprocal of the frequency
  - d. The timebase is the reciprocal of the square root of the frequency
10. What is the relationship between the vertical scale and the amplitude of a signal?
- a. The vertical scale is the reciprocal of the amplitude
  - b. The vertical scale is the square root of the amplitude
  - c. The vertical scale is the square root of the reciprocal of the amplitude
  - d. The vertical scale is the reciprocal of the square root of the amplitude
11. What is the relationship between the timebase and the phase of a signal?
- a. The timebase is the reciprocal of the phase
  - b. The timebase is the square root of the phase
  - c. The timebase is the square root of the reciprocal of the phase
  - d. The timebase is the reciprocal of the square root of the phase
12. What is the relationship between the vertical scale and the duty cycle of a signal?
- a. The vertical scale is the reciprocal of the duty cycle

- b. The vertical scale is the square root of the duty cycle
- c. The vertical scale is the square root of the reciprocal of the duty cycle
- d. The vertical scale is the reciprocal of the square root of the duty cycle

13. What is the purpose of using an oscilloscope to measure the frequency of a signal?

- a. To determine the number of cycles per second
- b. To determine the number of seconds per cycle
- c. To determine the number of cycles per second squared
- d. To determine the number of seconds per cycle squared

14. What is the purpose of using an oscilloscope to measure the amplitude of a signal?

- a. To determine the number of volts per division
- b. To determine the number of volts per second
- c. To determine the number of volts per second squared
- d. To determine the number of volts per division squared

15. What is the purpose of using an oscilloscope to measure the phase of a signal?

- a. To determine the number of degrees of phase shift
- b. To determine the number of seconds of delay
- c. To determine the number of degrees of phase shift per second
- d. To determine the number of seconds of delay per degree of phase shift

16. What is the purpose of using an oscilloscope to measure the duty cycle of a signal?

- a. To determine the percentage of time the signal is high
- b. To determine the percentage of time the signal is low
- c. To determine the number of seconds the signal is high
- d. To determine the number of seconds the signal is low

17. How does the timebase affect the measurement of frequency?

- a. The timebase has no effect on the measurement of frequency
- b. The timebase must be set to the reciprocal of the frequency
- c. The timebase must be set to the square root of the frequency
- d. The timebase must be set to the reciprocal of the square root of the frequency

18. How does the timebase affect the measurement of amplitude?

- a. The timebase has no effect on the measurement of amplitude
- b. The timebase must be set to the reciprocal of the amplitude
- c. The timebase must be set to the square root of the amplitude
- d. The timebase must be set to the reciprocal of the square root of the amplitude

19. How does the timebase affect the measurement of phase?

- a. The timebase has no effect on the measurement of phase
- b. The timebase must be set to the reciprocal of the phase
- c. The timebase must be set to the square root of the phase
- d. The timebase must be set to the reciprocal of the square root of the phase

20. How does the timebase affect the measurement of duty cycle?

- a. The timebase has no effect on the measurement of duty cycle
- b. The timebase must be set to the reciprocal of the duty cycle
- c. The timebase must be set to the square root of the duty cycle
- d. The timebase must be set to the reciprocal of the square root of the duty cycle

21. How does the vertical scale affect the measurement of frequency?

- a. The vertical scale has no effect on the measurement of frequency
- b. The vertical scale must be set to the reciprocal of the frequency
- c. The vertical scale must be set to the square root of the frequency
- d. The vertical scale must be set to the reciprocal of the square root of the frequency

22. How does the vertical scale affect the measurement of amplitude?

- a. The vertical scale has no effect on the measurement of amplitude
- b. The vertical scale must be set to the reciprocal of the amplitude
- c. The vertical scale must be set to the square root of the amplitude
- d. The vertical scale must be set to the reciprocal of the square root of the amplitude

23. How does the vertical scale affect the measurement of phase?

- a. The vertical scale has no effect on the measurement of phase
- b. The vertical scale must be set to the reciprocal of the phase

- c. The vertical scale must be set to the square root of the phase
- d. The vertical scale must be set to the reciprocal of the square root of the phase

24. How does the vertical scale affect the measurement of duty cycle?

- a. The vertical scale has no effect on the measurement of duty cycle
- b. The vertical scale must be set to the reciprocal of the duty cycle
- c. The vertical scale must be set to the square root of the duty cycle
- d. The vertical scale must be set to the reciprocal of the square root of the duty cycle

25. What is the effect of using an AC coupling on the measurement of frequency?

- a. The AC coupling has no effect on the measurement of frequency
- b. The AC coupling must be set to the reciprocal of the frequency
- c. The AC coupling must be set to the square root of the frequency
- d. The AC coupling must be set to the reciprocal of the square root of the frequency

26. What is the effect of using an AC coupling on the measurement of amplitude?

- a. The AC coupling has no effect on the measurement of amplitude
- b. The AC coupling must be set to the reciprocal of the amplitude
- c. The AC coupling must be set to the square root of the amplitude
- d. The AC coupling must be set to the reciprocal of the square root of the amplitude

27. What is the effect of using an AC coupling on the measurement of phase?

- a. The AC coupling has no effect on the measurement of phase
- b. The AC coupling must be set to the reciprocal of the phase
- c. The AC coupling must be set to the square root of the phase
- d. The AC coupling must be set to the reciprocal of the square root of the phase

28. What is the effect of using an AC coupling on the measurement of duty cycle?

- a. The AC coupling has no effect on the measurement of duty cycle
- b. The AC coupling must be set to the reciprocal of the duty cycle
- c. The AC coupling must be set to the square root of the duty cycle
- d. The AC coupling must be set to the reciprocal of the square root of the duty cycle

29. What is the effect of using a DC coupling on the measurement of frequency?

- a. The DC coupling has no effect on the measurement of frequency

- b. The DC coupling must be set to the reciprocal of the frequency
- c. The DC coupling must be set to the square root of the frequency
- d. The DC coupling must be set to the reciprocal of the square root of the frequency

30. What is the effect of using a DC coupling on the measurement of amplitude?

- a. The DC coupling has no effect on the measurement of amplitude
- b. The DC coupling must be set to the reciprocal of the amplitude
- c. The DC coupling must be set to the square root of the amplitude
- d. The DC coupling must be set to the reciprocal of the square root of the amplitude

31. What is the effect of using a DC coupling on the measurement of phase?

- a. The DC coupling has no effect on the measurement of phase
- b. The DC coupling must be set to the reciprocal of the phase
- c. The DC coupling must be set to the square root of the phase
- d. The DC coupling must be set to the reciprocal of the square root of the phase

32. What is the effect of using a DC coupling on the measurement of duty cycle?

- a. The DC coupling has no effect on the measurement of duty cycle
- b. The DC coupling must be set to the reciprocal of the duty cycle
- c. The DC coupling must be set to the square root of the duty cycle
- d. The DC coupling must be set to the reciprocal of the square root of the duty cycle

33. What is the effect of using a trigger on the measurement of frequency?

- a. The trigger has no effect on the measurement of frequency
- b. The trigger must be set to the reciprocal of the frequency
- c. The trigger must be set to the square root of the frequency
- d. The trigger must be set to the reciprocal of the square root of the frequency

34. What is the effect of using a trigger on the measurement of amplitude?

- a. The trigger has no effect on the measurement of amplitude
- b. The trigger must be set to the reciprocal of the amplitude
- c. The trigger must be set to the square root of the amplitude
- d. The trigger must be set to the reciprocal of the square root of the amplitude

35. What is the effect of using a trigger on the measurement of phase?

a. The trigger has no effect on the measurement of phase

b. The trigger must be set to the reciprocal of the phase

c. The trigger must be set to the square root of the phase

d. The trigger must be set to the reciprocal of the square root of the phase

36. What is the effect of using a trigger on the measurement of duty cycle?

a. The trigger has no effect on the measurement of duty cycle

b. The trigger must be set to the reciprocal of the duty cycle

c. The trigger must be set to the square root of the duty cycle

d. The trigger must be set to the reciprocal of the square root of the duty cycle

37. What is the effect of using a probe on the measurement of frequency?

a. The probe has no effect on the measurement of frequency

b. The probe must be set to the reciprocal of the frequency

c. The probe must be set to the square root of the frequency

d. The probe must be set to the reciprocal of the square root of the frequency

38. What is the effect of using a probe on the measurement of amplitude?

a. The probe has no effect on the measurement of amplitude

b. The probe must be set to the reciprocal of the amplitude

c. The probe must be set to the square root of the amplitude

d. The probe must be set to the reciprocal of the square root of the amplitude

39. What is the effect of using a probe on the measurement of phase?

a. The probe has no effect on the measurement of phase

b. The probe must be set to the reciprocal of the phase

c. The probe must be set to the square root of the phase

d. The probe must be set to the reciprocal of the square root of the phase

40. What is the effect of using a probe on the measurement of duty cycle?

a. The probe has no effect on the measurement of duty cycle

b. The probe must be set to the reciprocal of the duty cycle

c. The probe must be set to the square root of the duty cycle

d. The probe must be set to the reciprocal of the square root of the duty cycle

41. What is the effect of using a ground clip on the measurement of frequency?

- a. The ground clip has no effect on the measurement of frequency
- b. The ground clip must be set to the reciprocal of the frequency
- c. The ground clip must be set to the square root of the frequency
- d. The ground clip must be set to the reciprocal of the square root of the frequency

42. What is the effect of using a ground clip on the measurement of amplitude?

- a. The ground clip has no effect on the measurement of amplitude
- b. The ground clip must be set to the reciprocal of the amplitude
- c. The ground clip must be set to the square root of the amplitude
- d. The ground clip must be set to the reciprocal of the square root of the amplitude

43. What is the effect of using a ground clip on the measurement of phase?

- a. The ground clip has no effect on the measurement of phase
- b. The ground clip must be set to the reciprocal of the phase
- c. The ground clip must be set to the square root of the phase
- d. The ground clip must be set to the reciprocal of the square root of the phase

44. What is the effect of using a ground clip on the measurement of duty cycle?

- a. The ground clip has no effect on the measurement of duty cycle
- b. The ground clip must be set to the reciprocal of the duty cycle
- c. The ground clip must be set to the square root of the duty cycle
- d. The ground clip must be set to the reciprocal of the square root of the duty cycle

45. What is the effect of using a power supply on the measurement of frequency?

- a. The power supply has no effect on the measurement of frequency
- b. The power supply must be set to the reciprocal of the frequency
- c. The power supply must be set to the square root of the frequency
- d. The power supply must be set to the reciprocal of the square root of the frequency

46. What is the effect of using a power supply on the measurement of amplitude?

- a. The power supply has no effect on the measurement of amplitude
- b. The power supply must be set to the reciprocal of the amplitude
- c. The power supply must be set to the square root of the amplitude



d. The power supply must be set to the reciprocal of the square root of the amplitude

47. What is the effect of using a power supply on the measurement of phase?

a. The power supply has no effect on the measurement of phase