

Algebra 1 Readiness Test

TO THE
PARENT

Please read the “How to Use” in your instruction manual before teaching this course. Since algebra builds upon previously studied concepts, the first step is to have your student take the following readiness test. The answers are at the beginning of the solutions in the instruction manual. They may also be found at mathusee.com/downloads.html. If the test reveals gaps in the student’s understanding, please contact your trained Math-U-See representative and find out how to rebuild your student’s math foundation. This course assumes a thorough grasp of the four basic operations (addition, subtraction, multiplication, and division), along with a mastery of fractions, decimals, percents, and pre-algebra.

 Solve.

1. $\frac{1}{2}$ of 36 = 2. $\frac{2}{3}$ of 12 = 3. $\frac{7}{8}$ of 56 = [Epsilon Lesson 1 and 2](#)

Fill in the missing numbers in the numerators or denominators to make equivalent fractions.

4. $\frac{2}{5} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{20}$ 5. $\frac{3}{7} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{12}{\quad}$ [Epsilon Lesson 3](#)

Follow the signs. Reduce fractional answers, and rewrite any improper fractions as mixed numbers. [First 25 chapters of Epsilon](#)

6. $\frac{1}{2} + \frac{3}{4} + \frac{5}{8} =$ [Epsilon lesson 8](#) 7. $\frac{4}{5} - \frac{2}{3} =$ [Epsilon lesson 4 & 5](#)

8. $\frac{1}{5} \div \frac{1}{6} =$ [Epsilon lesson 10](#) 9. $4\frac{2}{3} \div \frac{7}{18} =$ [Epsilon lesson 23](#)

10. $\frac{3}{5} \times 2\frac{1}{4} \times 4\frac{1}{3} =$ [Epsilon lesson 25](#)

11. $4\frac{1}{2} - 3\frac{2}{3} =$ [Epsilon lesson 19 & 20](#)

12. Change to an improper fraction: $6\frac{5}{7}$ [Epsilon lesson 15](#)

Add or subtract the decimal numbers. [Zeta 4 & 5](#)

13.
$$\begin{array}{r} 8.63 \\ -1.85 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 7.0 \\ +6.38 \\ \hline \end{array}$$

15.
$$\begin{array}{r} 21.052 \\ -.485 \\ \hline \end{array}$$

Multiply the decimal numbers. [Zeta 9,10,14](#)

16.
$$\begin{array}{r} 4.29 \\ \times .5 \\ \hline \end{array}$$

17.
$$\begin{array}{r} 2.7 \\ \times 3 \\ \hline \end{array}$$

18.
$$\begin{array}{r} .005 \\ \times .08 \\ \hline \end{array}$$

Divide and round to the nearest hundredth. [Zeta 17-21](#)

19. $5 \overline{) 16.6}$

20. $.04 \overline{) .033}$

21. $11 \overline{) 8.}$

Write each percent as a decimal. [Epsilon 29 Zeta 11& 23](#)

22. $6\% =$

23. $45\% =$

Change each fraction to a decimal and then to a percent. [Epsilon 29](#) [Zeta 11& 23](#)

24. $\frac{6}{10} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$

25. $\frac{1}{4} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}\%$

Follow the signs. [Pre Algebra lessons 1-4](#)

26. $(-7) + (-24) =$

27. $(-6) \times (-14) =$

28. $(10) - (-5) =$

29. $(-36) \div (9) =$

Simplify. [Pre Algebra Lessons 5&7](#)

30. $-1^2 =$

31. $-(5)^3 =$

32. $(-5)^2 =$

33. $\left(-\frac{2}{5}\right)^2 =$

Write in standard notation. [Zeta 2 & 3](#)

34. $2 \times 10^3 + 7 \times 10^2 + 1 \times 10^1 + 6 \times 10^0 + 8 \times \frac{1}{10^1} =$

Simplify each expression. [Pre Algebra Lesson 8](#)

35. $\sqrt{81}$

36. $\sqrt{25}$

37. $\sqrt{x^2}$

Answer the questions.

38. What is the Greatest Common Factor (GCF) of 14 and 28? [Epsilon Lesson 11](#)

[Pre Algebra 21](#)

39. What is the Greatest Common Factor (GCF) of 56 and 64? [Epsilon Lesson 11](#)

40. What is the Least Common Multiple (LCM) of 5 and 8? [Pre Algebra 21](#)

41. What is the Least Common Multiple (LCM) of 6 and 9? [Pre Algebra 21](#)

42. What are the prime factors of 56? [Pre Algebra 21-22](#)
[Epsilon 13](#)

43. What are the prime factors of 75? [Pre Algebra 21-22](#)
[Epsilon 13](#)

44. What is the value of $|-7|$? [Pre Algebra 21-22](#)

45. What is the multiplicative inverse, or reciprocal, of 4? [Pre Algebra 13](#)
[Epsilon 24,26,28,30](#)