

ALGEBRA 1 READINESS TEST SOLUTIONS

1. $\frac{1}{2}$ of $36 = 18$
2. $\frac{2}{3}$ of $12 = 8$
3. $\frac{7}{8}$ of $56 = 49$
4. $\frac{2}{5} = \frac{4}{10} = \frac{6}{15} = \frac{8}{20}$
5. $\frac{3}{7} = \frac{6}{14} = \frac{9}{21} = \frac{12}{28}$
6. $\frac{1}{2} + \frac{3}{4} + \frac{5}{8} =$
 $\frac{4}{8} + \frac{6}{8} + \frac{5}{8} = \frac{15}{8} = 1\frac{7}{8}$
7. $\frac{4}{5} - \frac{2}{3} = \frac{12}{15} - \frac{10}{15} = \frac{2}{15}$
8. $\frac{1}{5} \div \frac{1}{6} = \frac{1}{5} \times \frac{6}{1} = \frac{6}{5} = 1\frac{1}{5}$
9. $4\frac{2}{3} \div \frac{7}{18} = \frac{2\cancel{1}4}{3} \times \frac{\cancel{1}8^6}{7} = 12$
10. $\frac{3}{5} \times 2\frac{1}{4} \times 4\frac{1}{3} =$
 $\frac{3}{5} \times \frac{9}{4} \times \frac{13}{3} = \frac{117}{20} = 5\frac{17}{20}$
11. $4\frac{1}{2} = 3\frac{9}{6}$
 $-3\frac{2}{3} = -3\frac{4}{6}$
 $\hline \frac{5}{6}$
12. $\frac{47}{7}$
13. $\begin{array}{r} 8.63 \\ -1.85 \\ \hline 6.78 \end{array}$
14. $\begin{array}{r} 7.0 \\ + 6.38 \\ \hline 13.38 \end{array}$
15. $\begin{array}{r} 21.052 \\ - .486 \\ \hline 20.567 \end{array}$
16. $\begin{array}{r} 4.29 \\ \times .5 \\ \hline 2.145 \end{array}$
17. $\begin{array}{r} 2.7 \\ \times 3. \\ \hline 8.1 \end{array}$
18. $\begin{array}{r} .005 \\ \times .08 \\ \hline .00040 \text{ or } .0004 \end{array}$
19. $\begin{array}{r} 3.32 \\ 5 \overline{) 16.6} \end{array}$
 $.825 \text{ rounds to } .83$
20. $\begin{array}{r} .04 \overline{) .033} \end{array}$
 $.727 \text{ rounds to } .73$
21. $\begin{array}{r} 11 \overline{) 8.} \end{array}$
22. $6\% = .06$
23. $45\% = .45$

24. $\frac{6}{10} = .6 = 60\%$

25. $\frac{1}{4} = .25 = 25\%$

26. $(-7) + (-24) = -31$

27. $(-6) \times (-14) = 84$

28. $(10) - (-5) = 15$

29. $(-36) \div (9) = -4$

30. $-1^2 = -(1)(1) = -1$

31. $-(5)^3 = -(5)(5)(5) = -125$

32. $(-5)^2 = (-5)(-5) = 25$

33. $\left(-\frac{2}{5}\right)^2 = \left(-\frac{2}{5}\right)\left(-\frac{2}{5}\right) = \frac{4}{25}$

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

$$2 \times 1000 + 7 \times 100 + 1 \times 10 + 6 \times 1 + 8 \times .1 =$$

$$2000 + 700 + 10 + 6 + .8 = 2,716.8$$

35. $\sqrt{81} = 9$

36. $\sqrt{25} = 5$

37. $\sqrt{x^2} = x$

38. 14

39. 8

40. 40

41. 18

42. $2 \times 2 \times 2 \times 7 = 56$

43. $5 \times 5 \times 3 = 75$

44. 7

45. $\frac{1}{4}$