Algebra 1 Placement Test Instructions:

This placement test can help you determine whether your child is ready for Algebra. The test is not perfect, so in making any final placement decisions also use common sense.

Please print off the test and have your student take the test in a quiet, undisturbed environment. The student should work independently without the use of a calculator. It is not necessary to time the test, but most students will finish in less than $1\frac{1}{2}$ hours.

Scoring:
The test is divided into two sections.
Section 1 includes problems 1 – 15. This is the simpler part of the test, covering fractions, decimals, percents, and units of measurement.
Section 2 includes problems 16 – 30. It is the more difficult part of the test, covering equations and expressions.

The student is probably ready for Algebra if he/she makes the following scores on the two sections.

10 or more correct on Section 1 (problems 1 – 15)
and 8 or more correct on Section 2 (problems 16 – 30)

Thank you!
Michelle O'Hair
Algebra 1 Teacher

ALGEBRA 1
PLACEMENT TEST

1. 0.875
2. 24 gallons
3. $\frac{1}{6}$
4. 20
5. 0.056
6. 78.75
7. 23.1%
8. $\frac{8}{25}$
9. 420 inches
10. 3 miles
11. 4,511 millimeters
12. 20,160 square inches
13. 24
14. −61
15. 216
16. 53
17. $\frac{4}{15}$
18. 29
19. 33
20. 9
21. 11
22. $\frac{1}{5x}$
23. $\frac{1}{4x^4}$
24. $7x$
25. $\frac{x}{40}$
26. $\frac{y}{2}$
27. $\frac{7}{10z}$
28. 4 hours
29. $14,500
30. 19

Algebra 1 Placement Test

Section 1

1. Convert $\frac{7}{8}$ to a decimal.
2. The water tank had a maximum capacity of 84 gallons. If the tank was $\frac{2}{7}$ full, how many gallons of water did it have?
3. George cut $\frac{2}{3}$ of the pie and put that giant piece on his plate. Then he ate $\frac{1}{4}$ of that piece. What fraction of the original pie did George eat?
4. 15 has how many $\frac{3}{4}$s in it?

Answer each question below.

5. Write 5.6% as a decimal.
6. What is 45% of 175?
7. What percent of 52 is 12? Round your answer to the nearest tenth.
8. Convert 32% to a fraction. Make sure your answer is fully reduced.

Do each unit conversion below.

9. How many inches are in 35 feet?
10. Convert 15,840 feet into miles. (1 mile = 1,760 yards; 1 yard = 3 feet)
11. How many millimeters are in 4.511 meters?
12. Convert 140 square feet into square inches.

Calculate the value of each expression below.

13. $3(-9+17)$
14. $5(-8)-21$
15. $(2\cdot 3)^3$

Section 2

Solve each equation below.

16. $x-14=39$

17. $x+\frac{1}{3}=\frac{3}{5}$

18. $2x-15=43$

19. $\frac{y}{3}+4=15$

20. $5x+6x=99$

21. $7(x+4)=105$

Reduce each fraction below.

22. $\frac{5}{25x}$

23. $\frac{3x^2}{12x^6}$

Simplify each expression below. Make sure any fractions are fully reduced.

24. $9x-2x$

25. $\frac{2x}{25}\cdot\frac{5x}{16x}$

26. $\frac{3y}{13}+\frac{7y}{26}$

27. $\frac{3}{2z}-\frac{4}{5z}$

Translate each problem below into an equation and solve.

28. How long did it take Ted to drive (in his new sports car) 272 miles if his average speed was 68 mph?

29. Mr. Drysdale earned $906.25 in interest in one year on money that he had deposited in his local bank. If the bank paid an interest rate of 6.25%, how much money did Mr. Drysdale deposit?

30. There's some number that if you subtract 15 from it first, and then multiply that total by 7, the result is 28. Find the number.