

Placement Test Instructions

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

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 whole numbers and basics on fractions. Section 2 includes problems 16 – 30. It is the more difficult part of the test, covering fractions, decimals, percents, and units of measurement.

The student is probably ready for Pre-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),**

If the student's score falls below this level, the Math 7 Teaching Textbook is probably a better starting point.

Pre-Algebra Placement Test**Section 1**

Multiply or divide each group of numbers below. Write any remainders next to your answer.

1.
$$\begin{array}{r} 548 \\ \times 7 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 8,412 \\ \times 39 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 648 \\ \times 315 \\ \hline \end{array}$$

4.
$$6 \overline{)73,824}$$

5.
$$15 \overline{)9,409}$$

Reduce each fraction below.

6.
$$\frac{2}{18}$$

7.
$$\frac{21}{28}$$

Multiply or divide each pair of fractions below. Make sure your answers are fully reduced.

8.
$$\frac{4}{15} \times \frac{5}{8}$$

9.
$$\frac{2}{3} \times \frac{5}{7} \times \frac{3}{4}$$

10.
$$\frac{2}{7} \div \frac{6}{14}$$

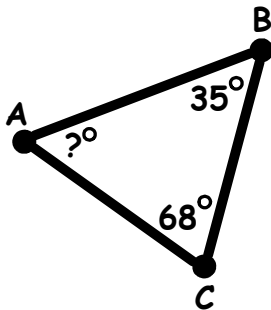
11.
$$4\frac{1}{2} \div 2\frac{2}{5}$$

Tell whether a $<$, $>$, or $=$ sign should go between these numbers.

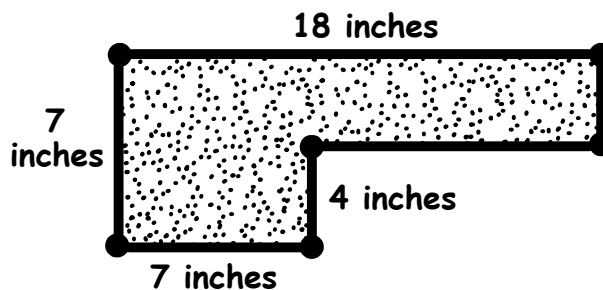
12. $-7 \underline{\hspace{1cm}} -5$

13. $-44.2 \underline{\hspace{1cm}} -44.22$

14. Find the missing angle in the diagram below.



15. Calculate the area of the figure below.



Section 2

Add or subtract each pair of fractions below. Make sure your answers are fully reduced.

16. $\frac{1}{4} + \frac{3}{8}$

17. $\frac{1}{6} + \frac{2}{5} + \frac{7}{30}$

18. $\frac{5}{6} - \frac{3}{9}$

19. $4\frac{1}{6} - 1\frac{1}{3}$

20. Write sixteen thousandths as a decimal.

Add or subtract each pair of numbers below.

21.
$$\begin{array}{r} 9.687 \\ + 8.295 \\ \hline \end{array}$$

22. $1.943 - 0.76$

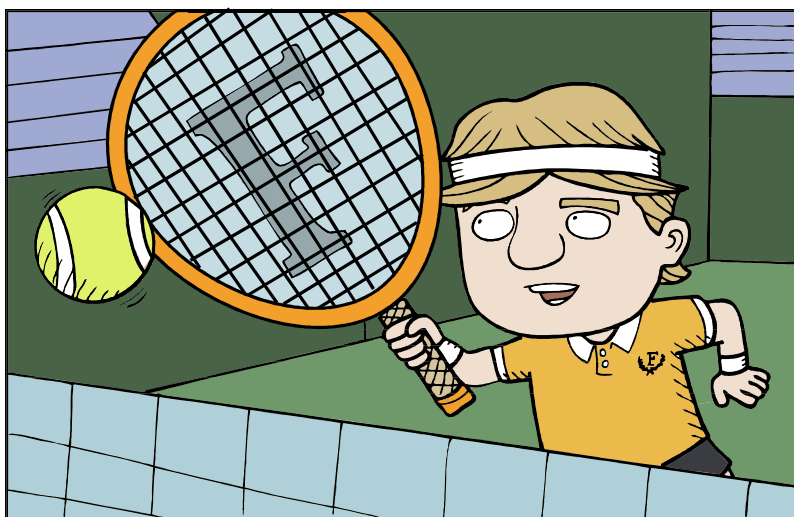
23. Divide $44.45 \div 3.5$

Answer each question below.

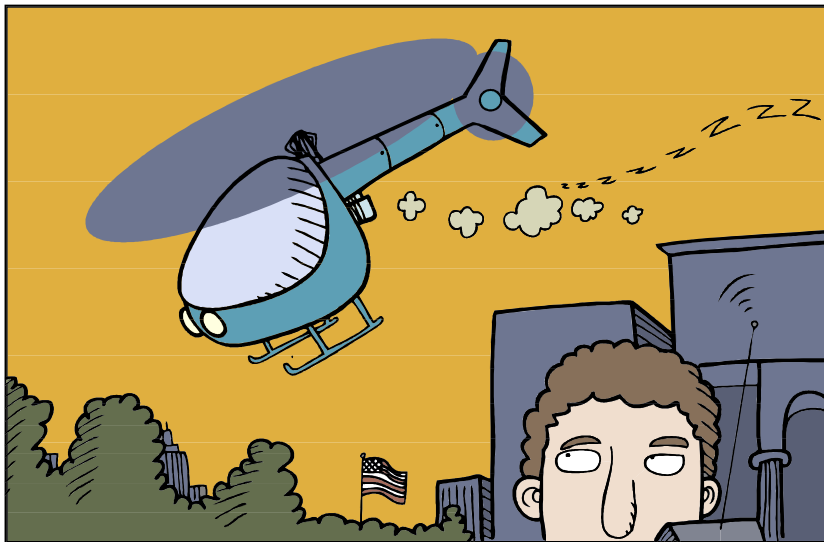
24. Write 0.874 as a percent.
25. Write 5.9% as a decimal.
26. What is 45% of 184?
27. Convert 27 feet into yards.
28. How many centimeters are in 3.511 meters?

Solve each word problem below.

29. At a sporting goods store, Franklin tennis racquets normally sell for \$110, but this week they're selling for $\frac{1}{5}$ less than their normal price. How much has the price on each racquet been lowered?



30. The price tag on the remote-controlled helicopter said \$79. If Jimmy buys the helicopter, he'll also have to pay 8% sales tax. How much does the helicopter cost with tax?



**PRE-ALGEBRA
PLACEMENT TEST**

1. 3,836
2. 328,068
3. 204,120
4. 12,304
5. 627 R4
6. $\frac{1}{9}$
7. $\frac{3}{4}$
8. $\frac{1}{6}$
9. $\frac{5}{14}$
10. $\frac{2}{3}$
11. $\frac{15}{8}$
12. $-7 < -5$
13. $-44.2 > -44.22$
14. 77°
15. 82 square inches
16. $\frac{5}{8}$
17. $\frac{4}{5}$
18. $\frac{1}{2}$
19. $2\frac{5}{6}$ or $\frac{17}{6}$
20. 0.016
21. 17.982
22. 1.183
23. 12.7
24. 87.4%
25. 0.059
26. 82.8
27. 9 yards
28. 351.1 centimeters
29. \$22
30. \$85.32