

Fundamentals of Math Placement Test

Instructions

This placement test can help you determine whether your child is ready for Fundamentals of Math at TCC. The test is not perfect, so when making any final placement decision, please 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 hour.

Scoring

The test is divided into two sections. Section 1 includes problems 1 - 15. This is the simpler part of the test. Section 2 includes problems 15 - 32, and is the more difficult part of the test. The student is probably ready for Fundamentals of Math if he/she makes the following scores on the two sections:

10 or more correct on Section 1 (problems 1 - 15)

8 or more correct on Section 2 (problems 16 - 32)

If the student's score falls below this level, Building Blocks of Math is probably a better starting point.

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Show all work!

Section 1

1. Write twenty-one thousand three hundred ninety-six using digits.

2. What is the place value of the underlined digit? 962,306

3. What is $36 + 85$?

4. What is 975 minus 462?

5. Rewrite 8×3 as the same number added to itself 3 times.

6. Rewrite $5 + 5 + 5 + 5 + 5 + 5$ as a multiplication problem.

7. Multiply each pair of numbers below:

6×1 _____ 6×3 _____ 6×4 _____ 6×6 _____ 6×7 _____

7×2 _____ 7×5 _____ 7×7 _____ 8×3 _____ 8×4 _____

8×6 _____ 8×8 _____ 9×1 _____ 9×3 _____ 9×6 _____

8. Multiply each pair of numbers below:

8×5 _____ 8×7 _____ 8×9 _____ 8×2 _____ 9×5 _____

9×7 _____ 9×9 _____ 9×4 _____ 9×2 _____ 9×8 _____

6×5 _____ 6×9 _____ 6×8 _____ 7×9 _____ 7×6 _____

$$\begin{array}{r} 9. \ 33 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 10. \ 723 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 11. \ 5,224 \\ \times 4 \\ \hline \end{array}$$

Divide

12. $14 \div 2$

13. $81 \div 9$

Solve the word problems:

14. Jason has 25 baseball cards and Ben has 32 baseball cards. How many baseball cards do they have altogether? _____

15. Mrs. Jones bought 48 donuts, but she gave away 36 of them. How many does she have left? _____

Section 2

$$\begin{array}{r} 16. \ 34.9 \\ + 25.8 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \ 7.3 \\ - 2.4 \\ \hline \end{array}$$

18. $9.17 - 3.8 =$

19.
$$\begin{array}{r} 17 \\ \times 5 \\ \hline \end{array}$$

20.
$$\begin{array}{r} 291 \\ \times 4 \\ \hline \end{array}$$

21.
$$\begin{array}{r} 322 \\ \times 13 \\ \hline \end{array}$$

22.
$$5 \overline{)65}$$

23.
$$3 \overline{)72}$$

24.
$$2 \overline{)135}$$

25. Draw a circle and shade $\frac{1}{3}$ of it.

26. Draw a circle and shade $\frac{1}{2}$ of it.

27. Draw a circle and shade $\frac{3}{4}$ of it.

28.
$$\frac{3}{5} + \frac{1}{5}$$

29.
$$\frac{5}{7} - \frac{2}{7}$$

30. What is the value of 2 quarters, 2 dimes, and 1 nickel?

31. Lauren bought a balloon for \$0.26. If she paid for the balloon with a 1 dollar bill, which of the choices below shows the best way to pay back her change?

A. 2 quarters 2 dimes and 4 pennies B. 2 quarters 1 dime and 2 pennies

C. 2 nickels and 3 pennies D. 7 dimes and 4 pennies

E. 1 quarter 4 dimes and 5 pennies

32. What is the place value of the underlined digit? 3.45

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Answer Key

1. 21,396
2. hundred thousands
3. 121
4. 513
5. $8 + 8 + 8$
6. 5×6
7. $6 \times 1 = 6$ $6 \times 3 = 18$ $6 \times 4 = 24$ $6 \times 6 = 36$ $6 \times 7 = 42$
 $7 \times 2 = 14$ $7 \times 5 = 35$ $7 \times 7 = 49$ $8 \times 3 = 24$ $8 \times 4 = 36$
 $8 \times 6 = 48$ $8 \times 8 = 64$ $9 \times 1 = 9$ $9 \times 3 = 27$ $9 \times 6 = 54$
8. $8 \times 5 = 40$ $8 \times 7 = 56$ $8 \times 9 = 72$ $8 \times 2 = 16$ $9 \times 5 = 45$
 $9 \times 7 = 63$ $9 \times 9 = 81$ $9 \times 4 = 36$ $9 \times 2 = 18$ $9 \times 8 = 72$
 $6 \times 5 = 30$ $6 \times 9 = 54$ $6 \times 8 = 48$ $7 \times 9 = 63$ $7 \times 6 = 42$
9. 66
10. 2,169
11. 20,896
12. 7
13. 9
14. 57 baseball cards
15. 12 donuts
16. 60.7
17. 4.9
18. 5.37
19. 85
20. 1,164
21. 4,186
22. 13
23. 24
24. 67 r 1
25. Check drawing
26. Check drawing
27. Check drawing
28. $\frac{4}{5}$
29. $\frac{3}{7}$
30. \$0.75
31. A
32. hundredths