

# Placement Test Review Unit 0

Basic Operations on Whole Numbers, Integers, Decimals & Fractions,  
Basic Algebraic Expressions & Equations

The Math Placement Test Sequence at the College of Western Idaho allows students to test out of Units in the developmental mathematics sequence. The Placement test for Unit 0 has 15 questions. If you complete a level with a score of 70% or higher, you may attempt the next level in the sequence. You are limited to two attempts per level on the Placement Test. The two attempts must not be on the same day.

Sample problems (and associated **topics**):

1. Write the number using digits: Three hundred fifty-six thousand, nine hundred three. **(Write whole numbers using digits.)**
2. Round 546,243 to the nearest ten-thousands place. **(Round numbers.)**
3. Find the opposite of -7. **(Find the opposite of numbers.)**
4. Simplify using order of operations:  $4 \cdot 1 + 4(13 - 9) + 6$ . **(Use the order of operations.)**
5. Convert the mixed number to an improper fraction:  $5\frac{3}{7}$ . **(Convert between mixed numbers and improper fractions.)**
6. Write the fraction in lowest terms.  $\frac{42}{56}$ . **(Write a fraction in lowest terms using common factors.)**
7. Add and simplify  $\frac{1}{8} + \frac{7}{10}$ . **(Add unlike fractions.)**
8. Multiply  $33.5 \times 2.7$ . **(Multiply decimals.)**
9. Subtract  $9.3 - 12.508$ . **(Add/subtract decimals.)**
10. Simplify  $|3 - 7|$ . **(Simplify absolute value expressions.)**
11. Evaluate  $12^4$ . **(Evaluate exponential expressions.)**
12. Add the following:  $43 + (-96)$ . **(Add signed numbers.)**
13. Multiply  $\left(\frac{1}{2}\right)\left(-\frac{7}{5}\right)\left(-\frac{8}{3}\right)$ . **(Multiply real numbers.)**
14. Divide  $-\frac{4}{15} \div \frac{6}{5}$ . **(Divide real numbers.)**

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15. Use the distributive property to rewrite the expression  $5(a - 8)$ . **(Rewrite expressions using the distributive property.)**
16. There are 10 dogs and 3 of those dogs are spotted. What fraction of the dogs were spotted? **(Interpreting a fraction word problem.)**
17. Collect like terms:  $-16d - 20d + 14d$ . **(Simplify expressions by combining like terms.)**
18. Solve the equation and check the solution:  $w - 25 = -14$ . **(Solve equations using the addition property.)**
19. Solve the equation and check the solution:  $3y = 42$ . **(Solve equations using the multiplication property of equality.)**
20. Solve for  $x$ :  $3x - 7 = 8$ . **(Solve equations using both the addition and the multiplication properties of equality.)**

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Answers:

1. 356,903

2. 550,000

3. 7

4. 26

5.  $\frac{38}{7}$

6.  $\frac{3}{4}$

7.  $\frac{33}{40}$

8. 90.45

9. -3.208

10. 4

11. 20,736

12. -53

13.  $\frac{28}{15}$

14.  $-\frac{2}{9}$

15.  $5a - 40$

16.  $\frac{3}{10}$

17.  $-22d$

18.  $w = 11$

19.  $y = 14$

20.  $x = 5$

Some websites to help you practice are:

IXL <https://www.ixl.com/math/algebra-1>

S.O.S Math <http://www.sosmath.com/algebra/algebra.html>

Khan Academy <https://www.khanacademy.org/math/algebra?t=practice>

Purplemath <http://www.purplemath.com/>