

# Quiz & Worksheet - Substitution Property of Equality

<http://study.com/academy/practice/quiz-worksheet-substitution-property-of-equality.html>

1. Which of the following is not a reason why the substitution property of equality is so important?

A. Without this property, we would not be able to plug in known values for variables into expressions and equations.

C. Without this property we would not be able to do basic arithmetic.

B. It makes solving equations and expressions much easier.

D. It makes algebra possible!

2. The substitution property of equality states:

A. If  $x=y$ , then  $x$  can be substituted in for  $y$  in any equation and  $y$  can be substituted for  $x$  in any equation.

C. If  $x=y$ , then  $x + p = y + p$

B. If  $x=y$ , then  $y=x$

D. If  $x=y$  and  $y=z$  then  $x=z$

3.

Using the substitution property of equality, solve the following expression:

$$x+y+5+z+7=$$

We know that  $x=2$ ,  $y=3$  and  $z=4$

A 18

C 21

B 19

D 20

Name : \_\_\_\_\_ Score : \_\_\_\_\_

Teacher : \_\_\_\_\_ Date : \_\_\_\_\_

### Simplifying Algebraic Expressions

1)  $-8w - \frac{h}{8}$  use  $h = -32$  and  $w = -9$

6)  $6d - \frac{s}{-7}$  use  $s = -28$  and  $d = 7$

2)  $-4(-5b - 6k)$  use  $k = -7$  and  $b = 2$

7)  $6(-8s - 4z)$  use  $z = 2$  and  $s = 4$

3)  $-4b - \frac{4}{x}$  use  $x = 2$  and  $b = -9$

8)  $-4(8d - 3k)$  use  $k = 2$  and  $d = -7$

4)  $-7(6z - 2n)$  use  $z = 7$  and  $n = 5$

9)  $9(-5x - 4h)$  use  $x = -6$  and  $h = -7$

5)  $\frac{d}{8} - 2n$  use  $d = 16$  and  $n = -6$

10)  $-\frac{-16}{c} - 2n$  use  $c = -8$  and  $n = -2$

