Mathematics: Substitutions Demo
Demo - Set 2

Contents

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1) Simplify algebraic expression

$2x - 0x - x + 8x =$

a) Solve for $x = 1$ _____

b) Solve for $x = 2$ _____

c) Solve for $x = 0$ _____

2) Simplify algebraic expression

$2x + 8x - 4x + 4x =$

a) Solve for $x = 0$ _____

b) Solve for $x = 2$ _____

c) Solve for $x = 1$ _____

3) Simplify algebraic expression

$8x + 8x - 10x + 4x =$

a) Solve for $x = 1$ _____

b) Solve for $x = 0$ _____

c) Solve for $x = 2$ _____

4) Simplify algebraic expression

$0x + 7x - 3x + x =$

a) Solve for $x = 2$ _____

b) Solve for $x = 4$ _____

c) Solve for $x = 3$ _____

5) Simplify algebraic expression

$(9x - 7x) + (7 - 4) + 6 + x =$

a) Solve for $x = 0$ _____
b) Solve for $x = 2$ _____
c) Solve for $x = 1$ _____

6) Simplify algebraic expression

$(8x - 4x + 10) + 4 - (9x - 7x) =$

a) Solve for $x = 1$ _____
b) Solve for $x = 2$ _____
c) Solve for $x = 3$ _____

7) Simplify algebraic expression

$(4x - x) + 4x - 4x + 8x - 6x =$

a) Solve for $x = 1$ _____
b) Solve for $x = 3$ _____
c) Solve for $x = 2$ _____

8) Simplify algebraic expression

$(10 - 1 + 8x) - (3x + 2) - 2x =$

a) Solve for $x = 4$ _____
b) Solve for $x = 3$ _____
c) Solve for $x = 1$ _____

9) Simplify algebraic expression

$$((7x + 2x + 0x) + (3y - 3y)) + 8x =$$

a) Solve for $x = 1$, $y = 2$ _____

b) Solve for $x = 1$, $y = 8$ _____

c) Solve for $x = 0$, $y = 10$ _____

10) Simplify algebraic expression

$$((10x - 2x) + (3x + 5x) + 3y) - 7x =$$

a) Solve for $x = 0$, $y = 6$ _____

b) Solve for $x = 1$, $y = 1$ _____

c) Solve for $x = 2$, $y = 0$ _____

11) Simplify algebraic expression

$$8x + 4y - ((9y + 8x - 9y + 0y)) =$$

a) Solve for $x = 4$, $y = 3$ _____

b) Solve for $x = 3$, $y = 4$ _____

c) Solve for $x = 7$, $y = 5$ _____

12) Simplify algebraic expression

$$((x + 9x + 6y)) - ((8x - 6x + 2x)) =$$

a) Solve for $x = 0$, $y = 1$ _____

b) Solve for $x = 3$, $y = 0$ _____

c) Solve for $x = 2$, $y = 1$ _____

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13) Simplify algebraic expression

$$((7x + 5y) - 5x) - ((8x - 3x - 3x)) =$$

a) Solve for $x = 7$, $y = 3$ _____
b) Solve for $x = 3$, $y = 2$ _____
c) Solve for $x = 9$, $y = 3$ _____

14) Simplify algebraic expression

$$((10z - 9z - 9x + 10x - x + 2z)) =$$

a) Solve for $z = 1$, $x = 8$ _____
b) Solve for $z = 4$, $x = 4$ _____
c) Solve for $z = 5$, $x = 9$ _____

15) Simplify algebraic expression

$$(9y + 0x - 5y + 7z - 0y + 6z) =$$

a) Solve for $z = 0$, $x = 4$, $y = 1$ _____
b) Solve for $z = 1$, $x = 6$, $y = 1$ _____
c) Solve for $z = 0$, $x = 8$, $y = 1$ _____

16) Simplify algebraic expression

$$(6y - 5y - 0z - 0z + 4z) + 2x =$$

a) Solve for $z = 1$, $x = 3$, $y = 5$ _____
b) Solve for $z = 0$, $x = 2$, $y = 9$ _____
c) Solve for $z = 1$, $x = 2$, $y = 0$ _____

17) Simplify algebraic expression

$(4 - 6) - 8y + 2x + (10 + 8) =$

a) Solve for $x = 0$, $y = 1$ _____

b) Solve for $x = 10$, $y = 6$ _____

c) Solve for $x = 7$, $y = 5$ _____

18) Simplify algebraic expression

$(y + (-9)) + 9x - (-7) - 8y - (-1y) =$

a) Solve for $x = 5$, $y = 5$ _____

b) Solve for $x = 1$, $y = 1$ _____

c) Solve for $x = 7$, $y = 8$ _____

19) Simplify algebraic expression

$(9 + (-10)) - (6x - 5y) + (-8x) + (-6) =$

a) Solve for $x = 0$, $y = 3$ _____

b) Solve for $x = 0$, $y = 4$ _____

c) Solve for $x = 1$, $y = 1$ _____

20) Simplify algebraic expression

$7y - (-12) + (-2) - (6y + (-5y)) - 4 =$

a) Solve for $y = 2$ _____

b) Solve for $y = 1$ _____

c) Solve for $y = 0$ _____

21) Simplify algebraic expression

$(x - x) \times 2x \times 7x \div (10x) \div (8x) =$

a) Solve for $x = 9$ _____

b) Solve for $x = 10$ _____

c) Solve for $x = 0$ _____

22) Simplify algebraic expression

$(4x \times 4) \div (4x \div 4 + (2x - x)) =$

a) Solve for $x = 9$ _____

b) Solve for $x = 2$ _____

c) Solve for $x = 3$ _____

23) Simplify algebraic expression

$(9x + 6x) \times 0x \times 24x \div ((36x \div 9)) =$

a) Solve for $x = 2$ _____

b) Solve for $x = 7$ _____

c) Solve for $x = 10$ _____

24) Simplify algebraic expression

$(10x - 0x) - 9x + (4x + 4x - 5x) =$

a) Solve for $x = 1$ _____

b) Solve for $x = 2$ _____

c) Solve for $x = 0$ _____

25) Simplify algebraic expression

$$(9x - 0x \times 9x + x) - (9x - x) =$$

a) Solve for $x = 3$ _____
b) Solve for $x = 5$ _____
c) Solve for $x = 1$ _____

26) Simplify algebraic expression

$$(8x - 6x) \times 0x + 2x - 16x \div 8 =$$

a) Solve for $x = 10$ _____
b) Solve for $x = 4$ _____
c) Solve for $x = 7$ _____

27) Simplify algebraic expression

$$(9x - 4x) - 0 \div x \times 0x \div (5x) =$$

a) Solve for $x = 0$ _____
b) Solve for $x = 2$ _____
c) Solve for $x = 1$ _____

28) Simplify algebraic expression

$$(0 \div 9) \div (9x) \div (10x) + 0x \div (10x) =$$

a) Solve for $x = 0$ _____
b) Solve for $x = 10$ _____
c) Solve for $x = 9$ _____

29) Simplify algebraic expression

$(32x \div 8 - (3x \div 3) + 8 - 2x) =$

a) Solve for $x = 0$ _____
b) Solve for $x = 2$ _____
c) Solve for $x = 1$ _____

30) Simplify algebraic expression

$((10x - 8x \times 1)) \div ((8 - 7) \times 2) =$

a) Solve for $x = 7$ _____
b) Solve for $x = 8$ _____
c) Solve for $x = 9$ _____

31) Simplify algebraic expression

$((2 + 7x + x) - 2 - 5x - 2x) =$

a) Solve for $x = 8$ _____
b) Solve for $x = 9$ _____
c) Solve for $x = 2$ _____

32) Simplify algebraic expression

$(63 \div 9) + 9x \div (10 - 4 \div 4) =$

a) Solve for $x = 3$ _____
b) Solve for $x = 1$ _____
c) Solve for $x = 2$ _____

33) Simplify algebraic expression

$$3x - 9x - 14x \div (-7) + (42x \div 6) =$$

a) Solve for $x = 2$ _____

b) Solve for $x = 3$ _____

c) Solve for $x = 1$ _____

34) Simplify algebraic expression

$$(1 + 6) + 7x + (-11) + 1 - 14 =$$

a) Solve for $x = 2$ _____

b) Solve for $x = 1$ _____

c) Solve for $x = 3$ _____

35) Simplify algebraic expression

$$(3 \div 3) - (-2x) \div 1 - 0x - 0 =$$

a) Solve for $x = 2$ _____

b) Solve for $x = 3$ _____

c) Solve for $x = 0$ _____

36) Simplify algebraic expression

$$(6x - (-9)) - (5x \div 1) + (-1x) - 7 =$$

a) Solve for $x = 10$ _____

b) Solve for $x = 9$ _____

c) Solve for $x = 3$ _____

37) Simplify algebraic expression

$$(4 \times (-2)) + 0 \times (-2)\, 0x \div (5x) \times (-6x) =$$

a) Solve for $x = 9$ _____
b) Solve for $x = 6$ _____
c) Solve for $x = 5$ _____

38) Simplify algebraic expression

$$(5x \div (-5) + 4x) + 4x - (-2x) \times (-6) =$$

a) Solve for $x = 1$ _____
b) Solve for $x = 2$ _____
c) Solve for $x = 0$ _____

39) Simplify algebraic expression

$$0x \times 3x \div ((3 \times (-1x) - 2x)) - (-4x) =$$

a) Solve for $x = 1$ _____
b) Solve for $x = 0$ _____
c) Solve for $x = 2$ _____

40) Simplify algebraic expression

$$(7x + (-3x)) - 7x - (-5) - 1 + (-6) =$$

a) Solve for $x = 2$ _____
b) Solve for $x = 1$ _____
c) Solve for $x = 0$ _____

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41) Simplify algebraic expression

$$(4 \times 1) + (8y - 7y + 3y - 2y) =$$

a) Solve for $y = 2$ _____

b) Solve for $y = 0$ _____

c) Solve for $y = 3$ _____

42) Simplify algebraic expression

$$10x - 0y \div (90y) \div ((y - 0x \times 10)) =$$

a) Solve for $x = 1$, $y = 7$ _____

b) Solve for $x = 1$, $y = 4$ _____

c) Solve for $x = 1$, $y = 8$ _____

43) Simplify algebraic expression

$$8x + 0x \times (x + 3x) \div (50y) \times 10x =$$

a) Solve for $x = 1$, $y = 6$ _____

b) Solve for $x = 1$, $y = 8$ _____

c) Solve for $x = 1$, $y = 0$ _____

44) Simplify algebraic expression

$$(4x \div 1) - 0y \div (3y) \div ((36y \div 6)) =$$

a) Solve for $x = 1$, $y = 1$ _____

b) Solve for $x = 2$, $y = 3$ _____

c) Solve for $x = 1$, $y = 9$ _____

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45) Simplify algebraic expression

$$8y - 0x \div (4z) \div ((5y - 0y \times 9z)) =$$

a) Solve for $z = 10$, $x = 3$, $y = 1$ _____
b) Solve for $z = 4$, $x = 4$, $y = 1$ _____
c) Solve for $z = 0$, $x = 10$, $y = 1$ _____

46) Simplify algebraic expression

$$(0z \times 6) + 7y - (0 \times 6 \times 30x) =$$

a) Solve for $z = 9$, $x = 10$, $y = 1$ _____
b) Solve for $z = 9$, $x = 7$, $y = 1$ _____
c) Solve for $z = 4$, $x = 2$, $y = 1$ _____

47) Simplify algebraic expression

$$(36z \div 4) - 0y \div ((6x - 6x) + 9y) =$$

a) Solve for $z = 1$, $x = 10$, $y = 9$ _____
b) Solve for $z = 1$, $x = 5$, $y = 7$ _____
c) Solve for $z = 1$, $x = 5$, $y = 8$ _____

48) Simplify algebraic expression

$$(5x + 0y \div (3y)) - 0 \div (3x) \times 10 =$$

a) Solve for $x = 1$, $y = 10$ _____
b) Solve for $x = 1$, $y = 7$ _____
c) Solve for $x = 2$, $y = 3$ _____

49) Simplify algebraic expression

$(0 \div (-9)) \times 45 \div ((5y - (-4y)) + 8) =$

a) Solve for $y = 8$ _____

b) Solve for $y = 9$ _____

c) Solve for $y = 5$ _____

50) Simplify algebraic expression

$(1 \times (-7) - (-8)) + (5 + (-9y) + 5y) =$

a) Solve for $y = 1$ _____

b) Solve for $y = 3$ _____

c) Solve for $y = 2$ _____

51) Simplify algebraic expression

$2x + 4 + 0 \div (35 \div (-5) + (-6)) =$

a) Solve for $x = 3$ _____

b) Solve for $x = 2$ _____

c) Solve for $x = 1$ _____

52) Simplify algebraic expression

$(0 \div (-1)) \times (-30) \times 10 \times 3y \div (3y) =$

a) Solve for $y = 9$ _____

b) Solve for $y = 1$ _____

c) Solve for $y = 0$ _____

53) Simplify algebraic expression

$(4y + 5) \times (9 \div 9) \times 0 \times 6 =$

a) Solve for $y = 4$ _____

b) Solve for $y = 0$ _____

c) Solve for $y = 3$ _____

54) Simplify algebraic expression

$(15y \div (-3)) - (-4x) + (0y \times (-3y)) - (-4) =$

a) Solve for $x = 2$, $y = 2$ _____

b) Solve for $x = 6$, $y = 4$ _____

c) Solve for $x = 10$, $y = 9$ _____

55) Simplify algebraic expression

$(12 - (-2) - 7) + (0 \div 4 \times 4y) =$

a) Solve for $y = 1$ _____

b) Solve for $y = 8$ _____

c) Solve for $y = 0$ _____

56) Simplify algebraic expression

$(90y \div (-9)) - (-7x) \div (35 \div 5) - 0 =$

a) Solve for $x = 4$, $y = 1$ _____

b) Solve for $x = 0$, $y = 1$ _____

c) Solve for $x = 0$, $y = 0$ _____

57) Simplify algebraic expression

$$(((0y \times 9) \times 18x)) \div 1 \div (30 \div 10 \times 6 + 4x) =$$

a) Solve for $x = 10$, $y = 1$ _____

b) Solve for $x = 8$, $y = 7$ _____

c) Solve for $x = 8$, $y = 8$ _____

58) Simplify algebraic expression

$$(28 \div 4) - 0 \div (0 \times 2x + (((8 + (-5x) - (-7x)))))) =$$

a) Solve for $x = 5$ _____

b) Solve for $x = 1$ _____

c) Solve for $x = 3$ _____

59) Simplify algebraic expression

$$(10 + 0z \div 9 \div (((8z - 6 + (-8)))) \times 7 \times (-3z)) =$$

a) Solve for $z = 5$ _____

b) Solve for $z = 6$ _____

c) Solve for $z = 7$ _____

60) Simplify algebraic expression

$$(((7x \times 0y - 10)) - (7 + (-7)) + (-9x)) + 5 + 7 =$$

a) Solve for $x = 0$, $y = 2$ _____

b) Solve for $x = 0$, $y = 1$ _____

c) Solve for $x = 1$, $y = 0$ _____

61) Simplify algebraic expression

$$1 - 0 \div (10y + (-8) \times (((14y \div 2) \div y))) - 0z =$$

a) Solve for $z = 5$, $y = 5$ _____

b) Solve for $z = 8$, $y = 2$ _____

c) Solve for $z = 6$, $y = 2$ _____

62) Simplify algebraic expression

$$(((6 + (-6)) \div ((2 + 1 - 5x))) \times ((3y \div 1) + (-5))) =$$

a) Solve for $x = 0$, $y = 1$ _____

b) Solve for $x = 4$, $y = 7$ _____

c) Solve for $x = 5$, $y = 0$ _____

63) Simplify algebraic expression

$$(4z \div (-1) + 10z + (-8)) \times ((2 + (-3)) - 7y + 9y) =$$

a) Solve for $z = 1$, $y = 1$ _____

b) Solve for $z = 0$, $y = 0$ _____

c) Solve for $z = 1$, $y = 3$ _____

64) Simplify algebraic expression

$$(54 \div 9 \times 5 \times 0x \div (((3z - (-2x) - (-4x))) - 4)) =$$

a) Solve for $z = 6$, $x = 0$ _____

b) Solve for $z = 9$, $x = 5$ _____

c) Solve for $z = 9$, $x = 3$ _____

1) Simplify algebraic expression

$$((10y - 2y - 6y)) + (7x + 5y - 0x) =$$

a) Solve for $x = 1$, $y = 1$ _____

b) Solve for $x = 2$, $y = 0$ _____

c) Solve for $x = 0$, $y = 0$ _____

2) Simplify algebraic expression

$$4x - 2x + 0 + (-9x) - (1 - (-1y)) =$$

a) Solve for $x = 1$, $y = 9$ _____

b) Solve for $x = 1$, $y = 7$ _____

c) Solve for $x = 2$, $y = 1$ _____

3) Simplify algebraic expression

$$(0 \div (-4) + 5y) + (32x \div (-4)) + 9y =$$

a) Solve for $x = 10$, $y = 5$ _____

b) Solve for $x = 7$, $y = 4$ _____

c) Solve for $x = 6$, $y = 4$ _____

4) Simplify algebraic expression

$$24 \div (-3) + (((7 + (-7)) \div (2z))) \times ((5x - 5x) \div (-13)) =$$

a) Solve for $z = 5$, $x = 3$ _____

b) Solve for $z = 9$, $x = 9$ _____

c) Solve for $z = 7$, $x = 6$ _____

1) Simplify algebraic expression

$$(10y - 8y + 3y) + (10y - 4y + 6x) =$$

a) Solve for $x = 1$, $y = 1$ _____
b) Solve for $x = 0$, $y = 0$ _____
c) Solve for $x = 2$, $y = 0$ _____

2) Simplify algebraic expression

$$(3 + 5x) - (9y - (-5)) + 7x + (-2) =$$

a) Solve for $x = 4$, $y = 5$ _____
b) Solve for $x = 6$, $y = 6$ _____
c) Solve for $x = 3$, $y = 3$ _____

3) Simplify algebraic expression

$$(1 \times 0x) \div 12 \div (7y - 4y) \div (-3) =$$

a) Solve for $x = 1$, $y = 1$ _____
b) Solve for $x = 7$, $y = 9$ _____
c) Solve for $x = 8$, $y = 0$ _____

4) Simplify algebraic expression

$$(45z \div (-5) - 6 \div 2 - (-3x) + (9 + (-5)) + 0x) =$$

a) Solve for $z = 1$, $x = 1$ _____
b) Solve for $z = 2$, $x = 9$ _____
c) Solve for $z = 1$, $x = 4$ _____

1) Simplify algebraic expression

$$((2x - 0x) - 0x) + (3x - x + 3y) =$$

a) Solve for $x = 3$, $y = 2$ _____

b) Solve for $x = 0$, $y = 6$ _____

c) Solve for $x = 4$, $y = 1$ _____

2) Simplify algebraic expression

$$(1 + (-3x)) - (-3x) + (8y - (-3x)) - 5 =$$

a) Solve for $x = 5$, $y = 0$ _____

b) Solve for $x = 2$, $y = 2$ _____

c) Solve for $x = 6$, $y = 0$ _____

3) Simplify algebraic expression

$$(0 \div 8) \div ((0 - 3) - 4y) - (-5) =$$

a) Solve for $y = 10$ _____

b) Solve for $y = 1$ _____

c) Solve for $y = 9$ _____

4) Simplify algebraic expression

$$63z \div 9 - (4 \times 0x) \times 2 + 4 + 1 - 10 =$$

a) Solve for $z = 1$, $x = 4$ _____

b) Solve for $z = 0$, $x = 8$ _____

c) Solve for $z = 1$, $x = 1$ _____

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1	2	3	4
$9x$ a) 9 b) 18 c) 0	$10x$ a) 0 b) 20 c) 10	$10x$ a) 10 b) 0 c) 20	$5x$ a) 10 b) 20 c) 15

5	6	7	8
$3x + 9$ a) 9 b) 15 c) 12	$2x + 14$ a) 16 b) 18 c) 20	$5x$ a) 5 b) 15 c) 10	$3x + 7$ a) 19 b) 16 c) 10

9	10	11	12
$17x$ a) 17 b) 17 c) 0	$9x + 3y$ a) 18 b) 12 c) 18	$4y$ a) 12 b) 16 c) 20	$6x + 6y$ a) 6 b) 18 c) 18

13	14	15	16
$5y$ a) 15 b) 10 c) 15	$3z$ a) 3 b) 12 c) 15	$4y + 13z$ a) 4 b) 17 c) 4	$2x + y + 4z$ a) 15 b) 13 c) 8

17	18	19	20
$2x - 8y + 16$ a) 8 b) -12 c) -10	$9x - 6y - 2$ a) 13 b) 1 c) 13	$-14x + 5y - 7$ a) 8 b) 13 c) -16	$6y + 6$ a) 18 b) 12 c) 6

21	22	23	24
0 a) 0 b) 0 c) 0	8 a) 8 b) 8 c) 8	0 a) 0 b) 0 c) 0	$4x$ a) 4 b) 8 c) 0

25	26	27	28
$2x$ a) 6 b) 10 c) 2	0 a) 0 b) 0 c) 0	$5x$ a) 0 b) 10 c) 5	0 a) 0 b) 0 c) 0

29	30	31	32
$x + 8$ a) 8 b) 10 c) 9	x a) 7 b) 8 c) 9	x a) 8 b) 9 c) 2	$x + 7$ a) 10 b) 8 c) 9

33	34	35	36
$3x$ a) 6 b) 9 c) 3	$7x - 17$ a) -3 b) -10 c) 4	$2x + 1$ a) 5 b) 7 c) 1	2 a) 2 b) 2 c) 2

37	38	39	40
-8 a) -8 b) -8 c) -8	$-5x$ a) -5 b) -10 c) 0	$4x$ a) 4 b) 0 c) 8	$-3x-2$ a) -8 b) -5 c) -2
41	**42**	**43**	**44**
$2y+4$ a) 8 b) 4 c) 10	$10x$ a) 10 b) 10 c) 10	$8x$ a) 8 b) 8 c) 8	$4x$ a) 4 b) 8 c) 4
45	**46**	**47**	**48**
$8y$ a) 8 b) 8 c) 8	$7y$ a) 7 b) 7 c) 7	$9z$ a) 9 b) 9 c) 9	$5x$ a) 5 b) 5 c) 10
49	**50**	**51**	**52**
0 a) 0 b) 0 c) 0	$-4y+6$ a) 2 b) -6 c) -2	$2x+4$ a) 10 b) 8 c) 6	0 a) 0 b) 0 c) 0
53	**54**	**55**	**56**
0 a) 0 b) 0 c) 0	$4x-5y+4$ a) 2 b) 8 c) -1	7 a) 7 b) 7 c) 7	$x-10y$ a) -6 b) -10 c) 0
57	**58**	**59**	**60**
0 a) 0 b) 0 c) 0	7 a) 7 b) 7 c) 7	10 a) 10 b) 10 c) 10	$-9x+2$ a) 2 b) 2 c) -7
61	**62**	**63**	**64**
1 a) 1 b) 1 c) 1	0 a) 0 b) 0 c) 0	$12yz-16y-6z+8$ a) -2 b) 8 c) -10	0 a) 0 b) 0 c) 0

1	2	3	4
$7x + 7y$ a) 14 b) 14 c) 0	$-7x - y - 1$ a) -17 b) -15 c) -16	$-8x + 14y$ a) -10 b) 7.56366e-124 c) 8	-8 a) -8 b) -8 c) -8

1	2	3	4
$6x + 11y$ a) 17 b) 0 c) 12	$12x - 9y - 4$ a) -1 b) 14 c) 5	0 a) 0 b) 0 c) 0	$3x - 9z + 1$ a) -5 b) 10 c) 4

1	2	3	4
$4x + 3y$ a) 18 b) 18 c) 19	$3x + 8y - 4$ a) 11 b) 18 c) 14	5 a) 5 b) 5 c) 5	$7z - 5$ a) 2 b) -5 c) 2