Subtraction of signed numbers worksheet.

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Opposite of a number

Remember: The opposite of a number is the number with the opposite sign. For example, the opposite of 5 is -5 and the opposite of -9 is 9.

It is denoted by writing a $-$ sign in front. For example, "$-(-5)$" means "the opposite of (-5)", and "$-(-(-7))$" means "the opposite of the opposite of (-7)".

Practice exercises. Find the value of the following.

1. $-(-3) =$

2. $-9 =$

3. $-(-9) =$

4. $-(-(-9))) =$

5. $-(-67) =$

6. $-(-(-(-(-(-12))))) =$

Subtraction

Remember: **Subtracting** is the same as **adding the opposite**.

To subtract two numbers,

1) **Change** the **subtraction** sign **to** an **addition** sign.
2) **Change the second number to its opposite**.
3) **Add** as we learned before.

For example: $3-(-4)=3+4=7$. Another example: $(-6)-4=(-6)+(-4)=(-10)$.

Practice exercises

In the following, change the subtraction sign to an addition sign, and change the second number to its opposite. **Do not evaluate the sum yet**.

7. $(-68)-(-46)=(-68)+46$ (example)

8. $35-89=$

9. $(-51)-(-1)=$

10. $51-(-25)=$

11. $49-(-6)=$

12. $20-18=$

13. $22-(-99)=$

14. $(-91)-(-23)=$

15. $(-65)-(-71)=$

16. $30-62=$

17. $(-80)-80=$

18. $10-(-15)=$

19. $(-39)-95=$

20. $20-88=$

21. $(-19)-(-31)=$

22. $79-(-15)=$

23. $26-7=$

24. $(-71)-95=$

25. $(-58)-24=$

26. $79-97=$

27. $55-(-94)=$

28. $(-6)-87=$

29. $39-6=$

30. $73-94=$

31. $(-43)-(-55)=$

32. $(-62)-83=$

33. $(-82)-43=$

34. $(-46)-(-38)=$

35. $72-(-19)=$

36. $(-27)-(-29)=$

In the following, change the subtraction sign to an addition sign, and change the second number to its opposite. Then evaluate the sum you obtain.

37. $(-7) - (-6) =$

38. $3 - 9 =$

39. $(-32) - (-1) =$

40. $12 - (-4) =$

41. $49 - (-6) =$

42. $20 - 18 =$

43. $22 - (-10) =$

44. $(-9) - (-9) =$

45. $(-32) - (-12) =$

46. $30 - 62 =$

47. $(-10) - 10 =$

48. $10 - (-15) =$

49. $(-32) - 20 =$

50. $20 - 40 =$

51. $(-10) - (-31) =$

52. $75 - (-15) =$

53. $26 - 6 =$

54. $(-50) - 20 =$

55. $(-16) - 4 =$

56. $16 - 20 =$

57. $55 - (-54) =$

58. $(-6) - 87 =$

59. $39 - 6 =$

60. $73 - 94 =$

61. $(-43) - (-55) =$

62. $(-62) - 53 =$

63. $(-82) - 43 =$

64. $(-46) - (-38) =$

65. $72 - (-19) =$

66. $(-27) - (-29) =$

Combined addition and subtraction

Remember: When you only have addition and subtraction in an expression, **always proceed left to right.**

For example: $2 - 6 - 7 = 2 + (-6) - 7 = (-4) - 7 = (-4) + (-7) = (-11)$.

It is often easier to first change each of the subtraction signs to addition signs as well as the number after each subtraction sign to its opposite, to get just addition.

For example: $2 - 6 - 7 = 2 + (-6) + (-7) = (-4) + (-7) = (-11)$.

Practice exercises

For each of the following expressions, change each subtraction sign to an addition sign, and change the number after each subtraction sign to its opposite. Then evaluate the sum.

67. $(-3) - (-4) - 5 = (-3) + 4 + (-5) = (-4)$ (example)

68. $(-6) - (-6) - (-4) =$

69. $(-7) - 6 - 8 =$

70. $9 - (-6) + (-4) =$

71. $1 + (-4) - 8 =$

72. $0 - (-7) + (-4) =$

73. $(-7) - 6 - 8 - 6 + (-3) =$

74. $(-6) + (-7) - (-4) - 5 + 8 =$

75. $(-1) - (-1) - (-1) - 4 + (-1) =$

76. $5 + (-2) - (-9) + 3 + 8 =$

77. $(-2) + 6 - 8 + (-6) + (-3) =$

78. $9 + (-21) - 13 - (-10) + 1 =$