Name Date

Subtraction of real numbers

Using Rules of Algebra

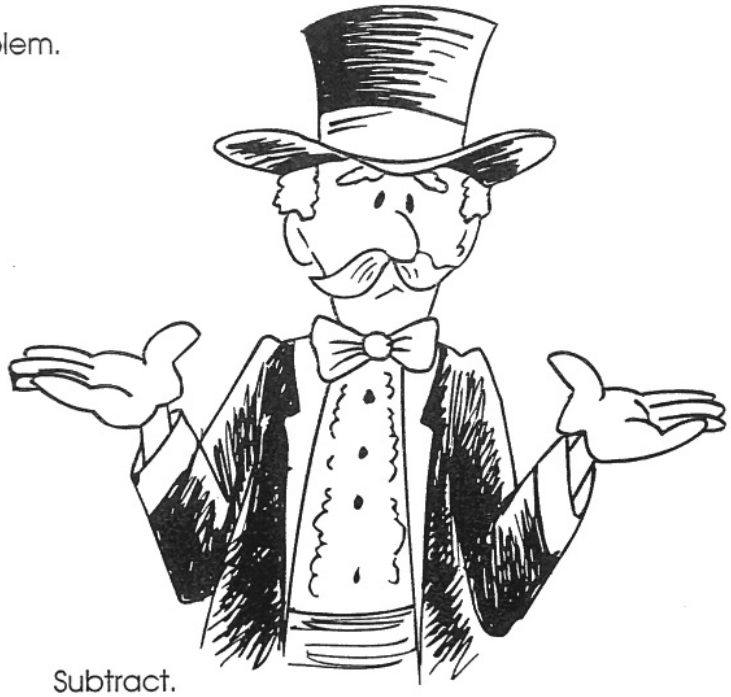
For all real numbers a and b, $a - b = a + (-b)$. Simply stated: To subtract a number, add its opposite.

$7 - 10 = 7 + (-10)$
$= -3$

$5 - 8 + 3 - 1 = 5 + (-8) + 3 + (-1)$
$= 5 + 3 + (-8) + (-1)$ (group the + and – numbers)
$= 8 + (-9)$
$= -1$

$-4 - (-12)$
$= -4 + 12$
$= 8$

Change each problem into an addition problem.



1. $7 - 9$
2. $-6 - (-4)$
3. $-11 - 5$
4. $12 - (-15)$
5. $8 - 3$
6. $22 - 5$
7. $4 - 11$
8. $-4 - (-9)$

Subtract.

9. $9 - 11$
10. $0 - (-12)$
11. $-5 - 4$
12. $6 - (-6)$
13. $-1 - (-1)$
14. $-7 - 6$
15. $3 - (-5)$
16. $17 - 23$

Evaluate when $x = -2$, $y = -5$, and $z = 12$.

17. $x - y$
18. $y - x$
19. $x - z$
20. $z - y$