Unit 5 Objective 3 Remediation

Solving Equations by Using Subtraction

Subtraction Property of Equality: If equal amounts are subtracted from the expressions on each side of an equation, the expressions remain equal.

Example 1: Solve the equation $y + 32 = 65$ by using the Subtraction Property of Equality.

Solution: $y + 32 = 65$

$y + 32 - 32 = 65 - 32$ Remember to apply the rules for subtracting real numbers.

$y = 33$ Don't forget, you can always check your solution for accuracy.

Example 2: Solve the equation $12.5 = 7.2 + x$ by using the Subtraction Property of Equality.

Solution: $12.5 = 7.2 + x$

$12.5 - 7.2 = 7.2 - 7.2 + x$ Remember to apply the rules for subtracting real numbers.

$5.3 = x$ or $x = 5.3$ Don't forget, you can always check your solution for accuracy.

Example 3: Solve the equation $d + \frac{1}{2} = -\frac{1}{2}$ by using the Subtraction Property of Equality.

Solution: $d + \frac{1}{2} = -\frac{1}{2}$

$d + \frac{1}{2} - \frac{1}{2} = -\frac{1}{2} - \frac{1}{2}$ Remember to apply the rules for subtracting real numbers.

$d = -\frac{2}{2} = -1$ Don't forget, you can always check your solution for accuracy.

Example 4: Solve the equation $d + \frac{1}{3} = -\frac{1}{4}$ by using the Subtraction Property of Equality.

Solution: $d + \frac{1}{3} = -\frac{1}{4}$

$d + \frac{1}{3} - \frac{1}{3} = -\frac{1}{4} - \frac{1}{3}$

$d = -\frac{1}{4} - \frac{1}{3}$

$d = -\frac{3}{12} - \frac{4}{12}$ Remember to apply the rules for subtracting real numbers.

$d = -\frac{7}{12}$ Don't forget, you can always check your solution for accuracy.

Try These

1. x + 3 = 15

2. t + 8 = -34

3. 18 = y + 7

4. m + 2.4 = 18

5. b + 3.8 = -13.3

6. 275 = x + 365

7. $y + 3\frac{5}{6} = 4\frac{2}{3}$

8. 10 + a = 15

9. 1.8 + x = 0.2

10. $2\frac{7}{8} + y = -4\frac{1}{8}$

11. 225 + b = 45

12. 17.5 + c = 28.2

13. x + 9 = -2

14. 49 + y = -7

15. m + 99 = -99

16. $y + 2\frac{1}{2} = 3\frac{2}{6}$