

Solving Equations Using The Division Property

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The Division Property of Equality

$$\text{If } a = b, \text{ then } \frac{a}{c} = \frac{b}{c} \quad (c \neq 0)$$

Solve and check the following equations.

1. $3a = -10$

2. $3(2a - 5) = 3$

3. $-(5 - 3a) - 8 = 10$

4. $3a + 15 = 0$

5. $-3(2a - 5) - 6 + a = 4(3 - 2a)$

6. $-3(5 - 2a) = 4(a - 2) - (-6)$

7. $3(2a - 5) - 5a = -10 - (4a - 5)$

8. $8a - 3 - (7a + 1) = -2 - 2(a - 4)$

9. $9(x + 7) - 6 = 9 - 2(x + 9)$

10. $5(x + 1) - (x - 18) = -5(x - 1)$

11. $-4x = 20 - (-4)$

Answers: 1. $a = -3\frac{1}{3}$ 2. $a = 3$ 3. $a = 7\frac{2}{3}$ 4. $a = -3$ 5. $a = 1$
6. $a = 6\frac{1}{2}$ 7. $a = 2$ 8. $a = 3\frac{1}{3}$ 9. $x = -6$ 10. $x = -2$ 11. $x = -6$