

Solving One-Step Equations 4.1



Overview of problems

Example Set: A

Solve the equations – show all work:

1. $x + 1 = 7$

6. $y - 12 = 4$

2. $z - \frac{1}{2} = 3$

7. $t + 15 = -15$

3. $9 + n = 0$

8. $40 = x - (-8)$

4. $g + 2 = -10$

9. $12 + h = -\frac{1}{3}$

5. $x + 2.9 = 7.6$

10. $c - 1.3 = 12.5$

Example Set: B

Solve the equations – show all work:

1. $2x = 14$

5. $-3x = 18$

2. $-4y = -20$

6. $-x = 3\frac{2}{3}$

3. $6x = 30$

7. $-10z = -100$

4. $8.1w = .02$

8. $-.002t = 1.039$

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Example Set: C

Solve the equations – show all work:

1. $\frac{1}{3}x = 2$

5. $\frac{2}{5}y = 3$

2. $\frac{9}{10}t = 1$

6. $-\frac{7}{11}w = \frac{1}{2}$

3. $\frac{-6x}{7} = 36$

7. $\frac{3t}{20} = -90$

4. $\frac{x}{4} = -5\frac{1}{2}$

8. $\frac{m}{-4} = -\frac{3}{4}$

Example Set: D

1. In physics the formula for force is $F=ma$. Where F (force) is measured in Newtons, m (mass) in kg and a (acceleration) in meters/second squared. How fast would a 500kg horse have to accelerate to create a force of 14000N?



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Overview of problems



Example Set: A - **ANSWER KEY**

Solve the equations – show all work:

1. $x + 1 = 7$ $x = 6$

6. $y - 12 = 4$ $y = 16$

2. $z - \frac{1}{2} = 3$ $z = 3\frac{1}{2}$

7. $t + 15 = -15$ $t = -30$

3. $9 + n = 0$ $n = -9$

8. $40 = x - (-8)$ $x = 32$

4. $g + 2 = -10$ $g = -12$

9. $12 + h = -\frac{1}{3}$ $h = -12\frac{1}{3}$

5. $x + 2.9 = 7.6$ $x = 4.7$

10. $c - 1.3 = 12.5$ $c = 13.8$



Example Set: B- **ANSWER KEY**

Solve the equations – show all work:

1. $2x = 14$ $x = 7$

5. $-3x = 18$ $x = -6$

2. $-4y = -20$ $y = 5$

6. $-x = 3\frac{2}{3}$ $x = -3\frac{2}{3}$

3. $6x = 30$ $x = 5$

7. $-10z = -100$ $z = 10$

4. $8.1w = .02$ $w = .002469$

8. $-.002t = 1.039$ $t = -519.5$

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Example Set: C-ANSWER KEY

Solve the equations – show all work:

1. $\frac{1}{3}x = 2$ $x = 6$

5. $\frac{2}{5}y = 3$ $y = \frac{15}{2}$

2. $\frac{9}{10}t = 1$ $t = 10/9$

6. $-\frac{7}{11}w = \frac{1}{2}$ $w = -\frac{11}{14}$

3. $\frac{-6x}{7} = 36$ $x = -42$

7. $\frac{3t}{20} = -90$ $t = -600$

4. $\frac{x}{4} = -5\frac{1}{2}$ $x = -22$

8. $\frac{m}{-4} = -\frac{3}{4}$ $m = 3$

Example Set: D-ANSWER KEY

1. In physics the formula for force is $F=ma$. Where F (force) is measured in Newtons, m (mass) in kg and a (acceleration) in meters/second squared. How fast would a 500kg horse have to accelerate to create a force of 14000N?

28 m/s^2

