Solving Two-Step Equations 3.2

Overview of problems

🚩 ## *Example Set: A*

Solve the equations- show all work:

1. $2x + 6 = 18$

2. $10y - 50 = -150$

3. $3x - 7 = 23$

4. $-3z + 5 = 26$

5. $-w + 9 = -31$

6. $\frac{1}{4}x + 2 = 3$

🚩 ## *Example Set: B*

Solve the equations- show all work:

1. $\frac{1}{3}x + 6 = 10$

2. $-4 + \frac{4}{5}x = -6$

3. $\frac{3}{8}w - \frac{1}{4} = \frac{1}{16}$

4. $\frac{t}{6} + \frac{1}{3} = \frac{1}{2}$

5. $6 = 14 - 2x$

6. $-\frac{2}{5}t + 1 = -2$

7. $7 + \frac{m}{11} = -3$

8. $3p - (-4) = 17$

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Overview of problems

⚑ *Example Set: C*

Solve the equations- show all work:

1. $5.9x + 2.6 = 14.7$

2. $-1.3y - 108.4 = .015$

3. $.00715 + .3z = -401$

4. $8.9g - .25 = \frac{1}{8}$

⚑ *Example Set: D*

1. The formula below models the population growth for a small town where P is the population and Y is the years of growth. Approximately how many days will it take the town to reach a population of 17,500?

   P = 600Y + 14000

Overview of problems

🚩 *Example Set: A -***ANSWER KEY**

Solve the equations- show all work:

1. $2x + 6 = 18$ $x = 6$

2. $10y - 50 = -150$ $y = -10$

3. $3x - 7 = 23$ $x = 10$

4. $-3z + 5 = 26$ $z = -7$

5. $-w + 9 = -31$ $w = 40$

6. $\frac{1}{4}x + 2 = 3$ $x = 4$

🚩 *Example Set: B-* **ANSWER KEY**

Solve the equations- show all work:

1. $\frac{1}{3}x + 6 = 10$ $x = 12$

2. $-4 + \frac{4}{5}x = -6$ $x = -\frac{5}{2}$

3. $\frac{3}{8}w - \frac{1}{4} = \frac{1}{16}$ $w = \frac{5}{6}$

4. $\frac{t}{6} + \frac{1}{3} = \frac{1}{2}$ $t = 1$

5. $6 = 14 - 2x$ $x = 4$

6. $-\frac{2}{5}t + 1 = -2$ $t = \frac{15}{2}$

7. $7 + \frac{m}{11} = -3$ $m = -110$

8. $3p - (-4) = 17$ $p = \frac{13}{3}$

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Overview of problems

🚩 *Example Set: C-**ANSWER KEY***

Solve the equations- show all work:

1. $5.9x + 2.6 = 14.7$ $x = 2.050$

2. $-1.3y - 108.4 = .015$ $y = -83.396$

3. $.00715 + .3z = -401$ $z = -1336.6905$

4. $8.9g - .25 = \frac{1}{8}$ $g = .04213$

🚩 *Example Set: D-**ANSWER KEY***

1. The formula below models the population growth for a small town where P is the population and Y is the years of growth. Approximately how many days will it take the town to reach a population of 17,500?

    P = 600Y + 14000

    2127.95 days