Solving One and Two-Step Equations Quiz

Multiple Choice
Identify the choice that best completes the statement or answers the question.

   a. $a = -29$
   b. $a = 29$
   c. $a = 15$
   d. $a = -15$

2. Solve $-7b = 21$
   a. 14
   b. -3
   c. 28
   d. -147

3. Solve $y - 5 = -8$
   a. 13
   b. -3
   c. -40
   d. -13

4. Solve $-5 = \frac{c}{7}$
   a. $\frac{7}{5}$
   b. -12
   c. $\frac{5}{7}$
   d. -35

Short Answer

5. $2x - 26 = 10$
Solving One and Two-Step Equations Quiz
Answer Section

MULTIPLE CHOICE

1. ANS: D
   \[ 44 = 14 - 2a \]
   First \( x \) is multiplied by \(-2\). Then 14 is added.
   \[ -14 - 14 \]
   Work backward: Subtract 14 from both sides.
   \[ 30 = -2a \]
   \[ \frac{30}{-2} = -2a \]
   Since \( x \) is multiplied by \(-2\), divide both sides by \(-2\) to undo the multiplication.
   \[ -15 = a \]

<table>
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<th>Feedback</th>
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<td>A</td>
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PTS: 1  DIF: Basic  REF: Page 92  OBJ: 2-3.1 Solving Two-Step Equations
NAT: 12.5.4.a  STA: A.A.22  TOP: 2-3 Solving Two-Step and Multi-Step Equations

2. ANS: B  PTS: 1  DIF: L2
   REF: 2-6 Solving Equations by Multiplying or Dividing
   OBJ: 2-6.1 Using Division to Solve Equations  NAT: NAEP 2005 A4a | NAEP 2005 A4b
   TOP: 2-6 Example 2  KEY: solving an equation | Division Property of Equality

3. ANS: B  PTS: 1  DIF: L2
   REF: 2-5 Solving Equations by Adding or Subtracting
   OBJ: 2-5.2 Using Addition to Solve Equations  NAT: NAEP 2005 A4a | NAEP 2005 A4b
   TOP: 2-5 Example 3  KEY: inverse operations | solving an equation | Addition Property of Equality

4. ANS: D  PTS: 1  DIF: L2
   REF: 2-6 Solving Equations by Multiplying or Dividing
   OBJ: 2-6.2 Using Multiplication to Solve Equations  NAT: NAEP 2005 A4a | NAEP 2005 A4b
   TOP: 2-6 Example 3  KEY: solving an equation | Multiplication Property of Equality

SHORT ANSWER

5. ANS:
   18

PTS: 1  DIF: L2  REF: 7-1 Solving Two-Step Equations
OBJ: 7-1.1 Using Properties to Solve Two-Step Equations  NAT: NAEP 2005 A4a | NAEP 2005 A4c
TOP: 7-1 Example 1  KEY: solving two-step equations
Solving One and Two-Step Equations Quiz

Multiple Choice
Identify the choice that best completes the statement or answers the question.

___  1. Solve \(-5 = \frac{c}{7}\)
   a. \(\frac{7}{5}\)
   b. \(-12\)
   c. \(-35\)
   d. \(-\frac{5}{7}\)

___  2. Solve \(y - 5 = -8\)
   a. 13
   b. \(-13\)
   c. \(-40\)
   d. \(-3\)

___  3. Solve \(44 = 14 - 2a\).
   a. \(a = 15\)
   b. \(a = 29\)
   c. \(a = -29\)
   d. \(a = -15\)

___  4. Solve \(-7b = 21\)
   a. 14
   b. \(-3\)
   c. 28
   d. \(-147\)

Short Answer

5. \(2x - 26 = 10\)
Solving One and Two-Step Equations Quiz
Answer Section

MULTIPLE CHOICE

1. ANS: C  PTS: 1  DIF: L2
   REF: 2-6 Solving Equations by Multiplying or Dividing
   OBJ: 2-6.2 Using Multiplication to Solve Equations  NAT: NAEP 2005 A4a | NAEP 2005 A4b
   TOP: 2-6 Example 3  KEY: solving an equation | Multiplication Property of Equality

2. ANS: D  PTS: 1  DIF: L2
   REF: 2-5 Solving Equations by Adding or Subtracting
   OBJ: 2-5.2 Using Addition to Solve Equations  NAT: NAEP 2005 A4a | NAEP 2005 A4b
   TOP: 2-5 Example 3  KEY: inverse operations | solving an equation | Addition Property of Equality

3. ANS: D
   44 = 14 – 2a  First x is multiplied by –2. Then 14 is added.
   –14 – 14  Work backward: Subtract 14 from both sides.
   30 = –2a
   \[
   \frac{30}{-2} = \frac{-2a}{-2} \quad \text{Since } x \text{ is multiplied by } -2, \text{ divide both sides by } -2 \text{ to undo the}
   \]
   \[
   -15 = a
   \]

   Feedback
   A Check the signs.
   B Substitute the solution in the original equation to check your answer.
   C To solve for the variable, work backward.
   D Correct!

   PTS: 1  DIF: Basic  REF: Page 92  OBJ: 2-3.1 Solving Two-Step Equations
   NAT: 12.5.4.a  STA: A.A.22  TOP: 2-3 Solving Two-Step and Multi-Step Equations

4. ANS: B  PTS: 1  DIF: L2
   REF: 2-6 Solving Equations by Multiplying or Dividing
   OBJ: 2-6.1 Using Division to Solve Equations  NAT: NAEP 2005 A4a | NAEP 2005 A4b
   TOP: 2-6 Example 2  KEY: solving an equation | Division Property of Equality

SHORT ANSWER

5. ANS:
   18

   PTS: 1  DIF: L2  REF: 7-1 Solving Two-Step Equations
   OBJ: 7-1.1 Using Properties to Solve Two-Step Equations  NAT: NAEP 2005 A4a | NAEP 2005 A4c
   TOP: 7-1 Example 1  KEY: solving two-step equations
Solving One and Two-Step Equations Quiz

Multiple Choice
Identify the choice that best completes the statement or answers the question.

1. Solve \( y - 5 = -8 \)
   a. \( -13 \)
   b. \( 13 \)
   c. \( -40 \)
   d. \( -3 \)

2. Solve \( 44 = 14 - 2a \).
   a. \( a = 29 \)
   b. \( a = 15 \)
   c. \( a = -29 \)
   d. \( a = -15 \)

3. Solve \( -5 = \frac{c}{7} \)
   a. \( -12 \)
   b. \( -35 \)
   c. \( \frac{5}{7} \)
   d. \( \frac{7}{5} \)

4. Solve \( -7b = 21 \)
   a. \( -3 \)
   b. \( 28 \)
   c. \( 14 \)
   d. \( -147 \)

Short Answer

5. \( 2x - 26 = 10 \)
Solving One and Two-Step Equations Quiz
Answer Section

MULTIPLE CHOICE

1. ANS: D PTS: 1 DIF: L2
   REF: 2-5 Solving Equations by Adding or Subtracting
   OBJ: 2-5.2 Using Addition to Solve Equations
   TOP: 2-5 Example 3
   KEY: inverse operations | solving an equation | Addition Property of Equality

2. ANS: D
   First x is multiplied by –2. Then 14 is added.
   Work backward: Subtract 14 from both sides.
   Since x is multiplied by –2, divide both sides by –2 to undo the multiplication.

   Feedback
   A Substitute the solution in the original equation to check your answer.
   B Check the signs.
   C To solve for the variable, work backward.
   D Correct!

SHORT ANSWER

5. ANS: 18