7.2 (Page 255)   Solving Two-Step Equations
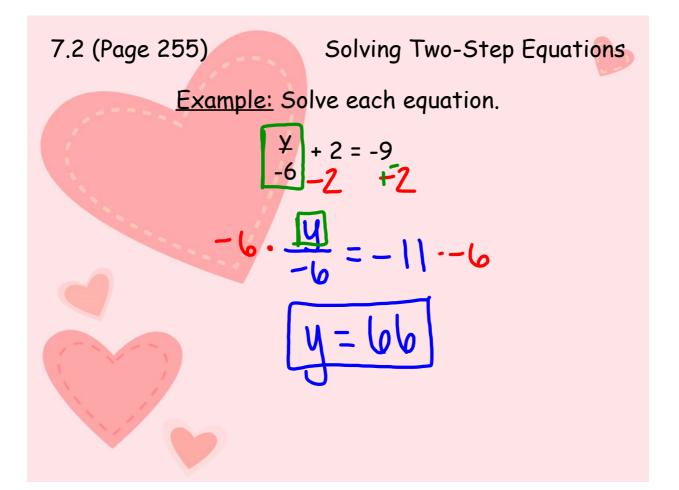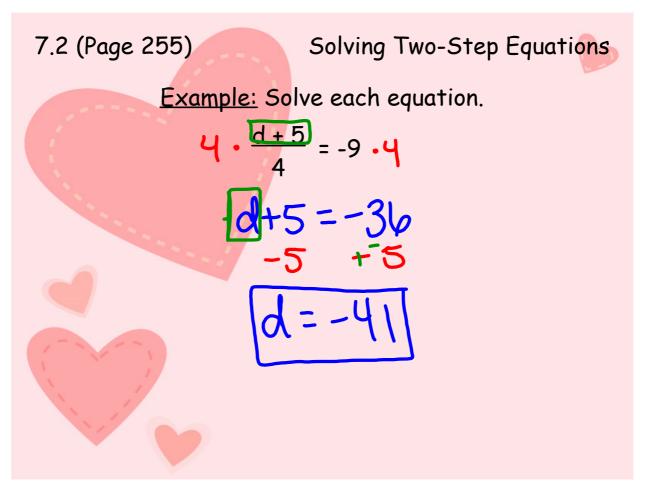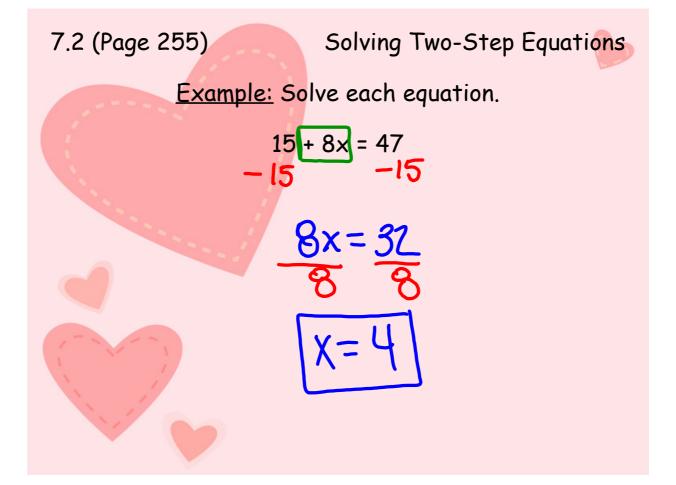
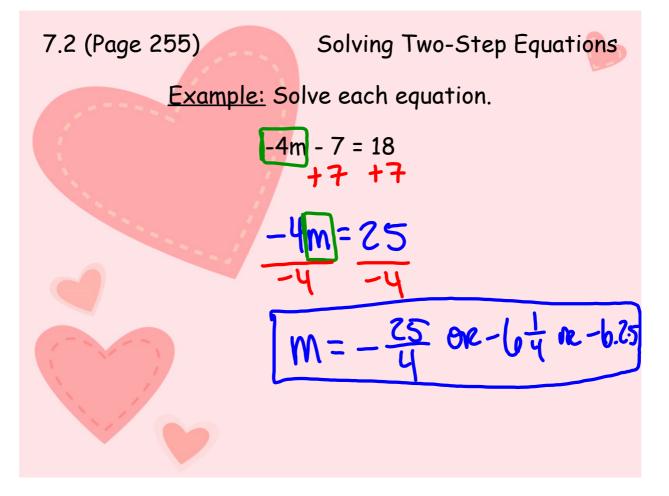Equations involving more than one operation can be solved by undoing these operations.

First, isolate the variable and any operation attached to it. Then, undo the extra operation. Finally, undo the operation attached to the variable.

7.2 (Page 255)   Solving Two-Step Equations

<u>Example:</u> Solve each equation.

$$\frac{y}{-6} + 2 = -9$$

$$-2 \quad +2$$

$$-6 \cdot \frac{y}{-6} = -11 \cdot -6$$

$$y = 66$$

7.2 (Page 255)   Solving Two-Step Equations

<u>Example:</u> Solve each equation.

$$4 \cdot \frac{d + 5}{4} = -9 \cdot 4$$

$$d + 5 = -36$$
$$-5 \qquad +5$$

$$\boxed{d = -41}$$

7.2 (Page 255)   Solving Two-Step Equations

<u>Example:</u> Solve each equation.

$$15 + 8x = 47$$
$$-15 \qquad -15$$

$$\frac{8x}{8} = \frac{32}{8}$$

$$\boxed{x = 4}$$

2

7.2 (Page 255)   Solving Two-Step Equations

<u>Example:</u> Solve each equation.

$$-4m - 7 = 18$$
$$+7 \quad +7$$

$$\frac{-4m}{-4} = \frac{25}{-4}$$

$$\boxed{m = -\frac{25}{4} \text{ or } -6\frac{1}{4} \text{ or } -6.25}$$

7.2 (Page 255)   Solving Two-Step Equations

<u>Example:</u> Solve each equation.

$$9 - 4z = 57$$
$$-9 \qquad -9$$

$$\frac{-4z}{-4} = \frac{48}{-4}$$

$$\boxed{z = -12}$$

7.2 (Page 255)   Solving Two-Step Equations

<u>Example:</u> Solve each equation.

$$-8 - t = -25$$
$$+8 \qquad +8$$

$$\frac{-t}{-1} = \frac{-17}{-1}$$

$$\boxed{t = 17}$$