Alg 1   2.3
Solve equations involving more than one operation
Solve consecutive integer problems

Order of operations: what we DO   GeMA
Solving: what we UNDO   AmeG

Bingo (if time)

$$2(x+5)$$

11. $3 \cdot -5 + -7 = -8$
$-15 + 7 = -8$

Solve each equation. Check your solution.

11. $3t + 7 = -8$
$ -7 \quad -7$
$\overline{}$
$\dfrac{3t}{3} = \dfrac{-15}{3}$
$t = -5$

12. $8 = 16 + 8n$
$16 + 8n = 8$
$-16 -16$
$\overline{}$
$\dfrac{8n}{8} = \dfrac{-8}{8}$
$n = -1$

$-34 = 6 \cdot -5 - 4$
$-34 = -30 + 4$

13. $-34 = 6m - 4$
$+4 +4$
$\overline{}$
$\dfrac{-30}{6} = \dfrac{6m}{6}$
$-5 = m$

$$\frac{3}{2} \cdot 12\frac{2}{3} - 8 = 11$$
$$19 - 8 = 11$$

4. $\frac{3}{2}a - 8 = 11$

$$+8 \quad +8$$

$$\frac{\frac{3}{2}a}{\frac{3}{2}} = \frac{19}{\frac{3}{2}}$$

$$a = 12\frac{2}{3} = \frac{38}{3}$$

$$8 = \frac{61 - 5}{7}$$
$$8 = \frac{56}{7}$$

5. $8 = \frac{(x - 5)}{7} \cdot 7$

$$56 = 7x - 35$$

$$x - 5$$

$$\frac{62 + 1}{-3} = -21$$
$$\frac{63}{-3} = -21$$

6. $\frac{c + 1}{-3} = -21 \cdot -3$

$$c + 1 = 63$$
$$-1 \quad -1$$

$$c = 62$$

$$12 + \bar{4}6 = -34$$

7. NUMBER THEORY Twelve decreased by twice a number equals -34. Write an equation for this situation and then find the number.

$$12 - 2n = -34$$
$$-12 \qquad\qquad -12$$

$$\frac{-2n}{-2} = \frac{-46}{-2}$$

$$n = 23$$

Write an equation and solve each problem.

24. Fourteen less than three fourths of a number is negative eight. Find the number.

25. Seventeen is thirteen subtracted from six times a number. What is the number? $13 - 6n$

$$\frac{3}{4}n - 14 = -8$$
$$+14 \quad\quad +14$$

$$\frac{3}{4}n = 6$$
$$\frac{\frac{3}{4}}{} \quad \frac{3}{4} \quad n = 8$$

$$17 = 6n - 13$$
$$+13 \quad\quad +13$$

$$\frac{30}{6} = \frac{6n}{6}$$
$$5 = n$$

Bingo (if time)

$2x + 8 = 24$

$5x - 3 = 27$

$-2 = -3x + 16$

$5 = 2x - 13$

$-2x + 4 = -8$
$\;\; -4 \quad\;\; -4$
_____
$\dfrac{-2x}{-2} = \dfrac{-12}{-2}$

$2x - 2 = -10$
$\;\; +2 \qquad +2$
_____
$\dfrac{2x}{2} = \dfrac{-8}{2}$

$4x - 5 = 15$

$-4x - 5 = 23?$
$\;\; +5 \qquad +5$
_____
$\dfrac{-4x}{-4} = \dfrac{28}{-4}$

$x = -7$

$$3x - 1 = 20$$
$$3x + 1 = 13$$
$$2x - 3 = 7$$