8.17

1. The perimeter of the fenced area shown is 260 meters. What is the measure of the side that is labeled x in the figure shown? Explain your reasoning.

$$3x + 10$$

x [rectangle]
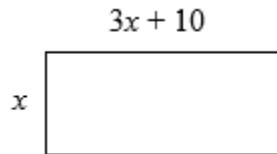
2. The figure below shows the heights of Rebecca and her brother Daniel.

60 inches

1.5 h

h
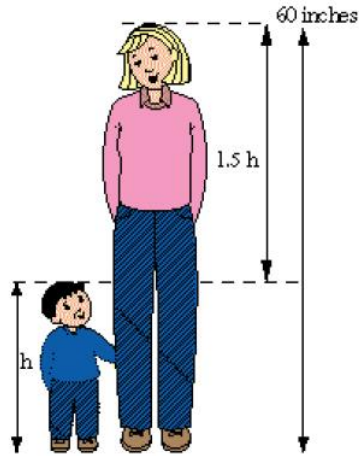
What is Daniel's height (h)?

3. Using the given key, write a multistep linear equation to represent the model. Then solve and confirm your algebraic solution.

Key:

☐ = 1 ■ = -1

▯ = x ▮ = -x

4. Mrs. Singh wrote this equation on the board.

$$\frac{1}{4}(2n - 28) = 10$$

What is the solution to the equation?

    A. $n = 17$
    B. $n = 19$
    C. $n = 34$
    D. $n = 68$

5. Solve the equation below for p.

    $5p = 21 + 2p$

    A. 3
    B. 4
    C. 7
    D. 10

6. What value for x makes this equation true?

$$\frac{1}{2}(x - 9) = x - 23$$

    A. 16
    B. 28
    C. 37
    D. 55

7. Provide the algebraic sentence that would represent the verbal sentence, "ten less than two-thirds of a number results in 15".

Answer: _____

8. Provide the verbal expression that would represent the algebraic expression, $2(x - 3) + 7$.

Answer: _____

2016 Mathematics Standards of Learning
Algebra Readiness Formative Assessment