

## Answer Key

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### Challenge: Skills and Applications

1.  $1\frac{17}{30}$  2.  $\frac{3}{16}$  3. 10, -10 4.  $\frac{22}{3}, -\frac{22}{3}$   
5. 29, -29 6. 21, -21 7. -2 8.  $-\frac{7}{2}$   
9.  $\frac{1}{2}$  10. 3, -3 11.  $0.4x + 3 = 15$ ;

Marianna can test 30 plants

12.  $3x + 2(\frac{2}{3}x) + 14\frac{1}{2} = 86$ ;  $16\frac{1}{2}$ ; three  
sides are  $16\frac{1}{2}$  cm, two sides are 11 cm, and one  
side is  $14\frac{1}{2}$  cm.

13. *Sample equation:*  $25q + 10(q + 2) + 5(2q) + [40 - (q + (q + 2) + 2q)] = 386$ ,  
where  $q$  = number of quarters; 8 quarters, 10  
dimes, 16 nickels, 6 pennies