Solve the equation. Check your solution.

1. $4 + y = 9.5$

2. $-\dfrac{x}{9} = -8$
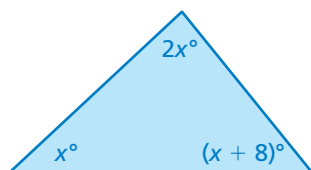
3. $z - \dfrac{2}{3} = \dfrac{1}{8}$

4. $r - |-4| = 11$

5. $3.8n - 13 = 1.4n + 5$
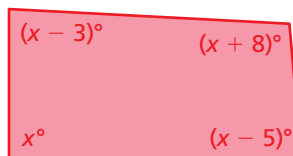
6. $9(8d - 5) + 13 = 12d - 2$

Find the value of x. Then find the angle measures of the polygon.

7.

$2x°$
$x°$ $(x + 8)°$

Sum of angle
measures: 180°

8.

$(x - 3)°$ $(x + 8)°$
$x°$ $(x - 5)°$

Sum of angle
measures: 360°

Solve the equation. Graph the solutions, if possible.

9. $|2p - 3| = 7$

10. $5|3v - 8| = -10$

Solve the equation for y.

11. $1.2x - 4y = 28$

12. $0.5 = 0.4y - 0.25x$

Solve the formula for the red variable.

13. Perimeter of a rectangle: $P = 2\ell + 2w$

14. Distance formula: $d = rt$

15. **BASKETBALL** Your basketball team wins a game by 13 points. The opposing team scores 72 points. Explain how to find your team's score.

16. **CYCLING** You are biking at a speed of 18 miles per hour. You are 3 miles behind your friend who is biking at a speed of 12 miles per hour. Write and solve an equation to find the amount of time it takes for you to catch up to your friend.

17. **VOLCANOES** Two scientists are measuring lava temperatures. One scientist records a temperature of 1725 °F. The other scientist records a temperature of 950 °C. Which is the greater temperature? $\left(\text{Use } C = \dfrac{5}{9}(F - 32).\right)$

18. **JOBS** Your profit for mowing lawns this week is $24. You are paid $8 per hour and you paid $40 for gas for the lawnmower. How many hours did you work this week?