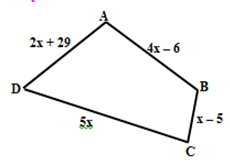
Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_

**Homework #6 - Due Friday 10/26**

**Directions 1-5: Solve each equation. Show all work.**

1. 0.7 y plus 0.1 y equals 16 2) 5 y plus 2 y minus 9 y equals minus 84

3) In the figure ABCD below, the total length of the sides equals 294 yards.

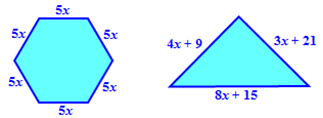
Find the value of *x*.

Find the measure of side CD.

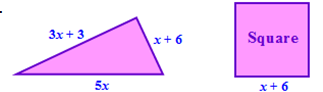
4) 6 left-parenthesis 2 b minus 3 right-parenthesis equals minus 90 5) 5 left-parenthesis 2 upper F minus 4 right-parenthesis equals minus 50 6) [2 x plus 7 equals 11 minus 2 x](http://api.gmath.guru/cgi-bin/gmath?%5Cdpi%7B480%7D2x%2B7%3D11-2x)

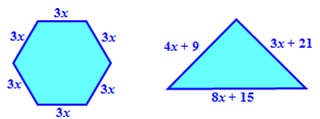
7) [4 A plus 7 equals 10 plus a](http://api.gmath.guru/cgi-bin/gmath?%5Cdpi%7B480%7D4a%2B7%3D10%2Ba) 8) [6 x minus 2 equals minus 18 plus x](http://api.gmath.guru/cgi-bin/gmath?%5Cdpi%7B480%7D6x-2%3D-18%2Bx) 9) [8 A minus 2 equals 12 plus a](http://api.gmath.guru/cgi-bin/gmath?%5Cdpi%7B480%7D8a-2%3D12%2Ba)

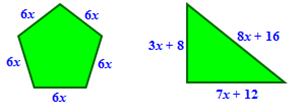
10) [5 x plus 5 equals 14 plus 2 x](http://api.gmath.guru/cgi-bin/gmath?%5Cdpi%7B480%7D5x%2B5%3D14%2B2x)

11) Write and solve an equation to find the value of *x* so that the polygons have the same perimeter.

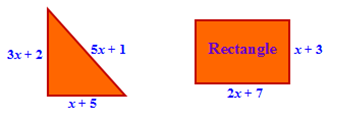
12) Write and solve an equation to find the value of *x* so that the polygons have the same perimeter.



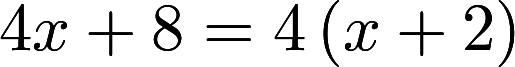
13) Write and solve an equation to find the value of *x* so that the polygons have the same perimeter.

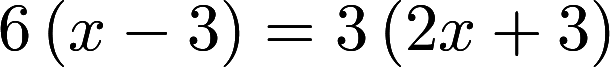
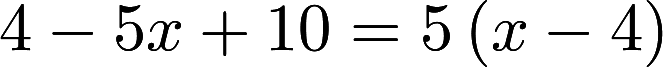
14) Write and solve an equation to find the value of *x* so that the polygons have the same perimeter.

15) Write and solve an equation to find the value of *x* so that the polygons have the same perimeter.



**Directions 16-20: Identify if there is one solution, no solution, or infinite solutions.**

16) [3 x minus 5 equals 2](http://api.gmath.guru/cgi-bin/gmath?%5Cdpi%7B480%7D3x-5%3D2) 17) [](http://api.gmath.guru/cgi-bin/gmath?%5Cdpi%7B480%7D4x%2B8%3D4%5Cleft(x%2B2%5Cright))

18) [](http://api.gmath.guru/cgi-bin/gmath?%5Cdpi%7B480%7D6%5Cleft(x-3%5Cright)%3D3%5Cleft(2x%2B3%5Cright)) 19) [](http://api.gmath.guru/cgi-bin/gmath?%5Cdpi%7B480%7D4-5x%2B10%3D5%5Cleft(x-4%5Cright))

20) [6 x minus 2 equals 6 x minus 8](http://api.gmath.guru/cgi-bin/gmath?%5Cdpi%7B480%7D6x-2%3D6x-8)