

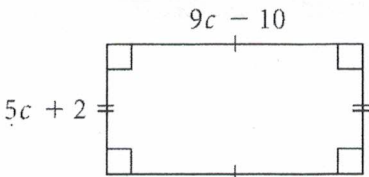
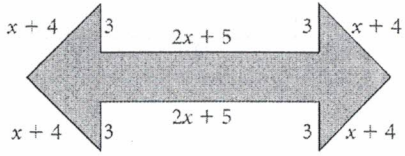
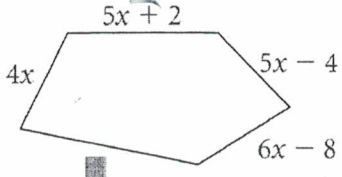
**I. Complete the chart below. Must show appropriate work for credit!**

Given Problem	Put in Standard Form	Classification
1.) $3 - 2y - 5 + 6y$		
2.) $2m(m + 3) - 6(3m - 2) + 2$		
3.) $9z^2 - z^4 - 6 + 5z + 2z^3$		
4.) $5a^2b^3 - 3a^2b^3 + 6b^3a^2$		

**II. Simplify each problem. Make sure your answer is in standard form. Must show work!!**

6.) $\begin{array}{r} w^2 + w - 4 \\ + 7w^2 - 4w + 8 \\ \hline \end{array}$	7.) $\begin{array}{r} 6c - 5 \\ - (4c + 9) \\ \hline \end{array}$
8.) $\begin{array}{r} 7h^2 + 4h - 8 \\ - (3h^2 - 2h + 10) \\ \hline \end{array}$	9.) $(7a^3 - a + 3a^2) + (8a^2 - 3a - 4)$
10.) $(-7z^3 + 3z - 1) - (-6z^2 + z + 4)$	11.) $(x^4 - 6x^4y - x^2y^4) - (2x^4y - 2x^2y^4 - 6)$
12.) $(2v - 6v^2) + (6v - 3v^4 - 8) - (6v - 6v^2 - 4v^4 + 4)$	
13.) $(m^2 + 5m^4n^3 + 4m^4) - (6m^4 + 8m^4n^3 - 3mn^4) + (7m^4 - 3m^4n^3)$	

**III. Complete each problem about the perimeter of each given figure. Must show work!!**

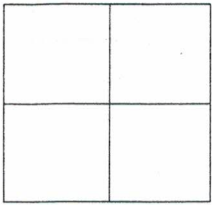
<p>14.) Find the perimeter.</p> 	<p>15.) Find the perimeter if <math>x = 3</math>.</p> 	<p>16.) Find the missing length given the perimeter = <math>25x + 8</math>.</p> 
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**IV. Multiply and simplify completely. Make sure your answer is in standard form. SHOW WORK!**

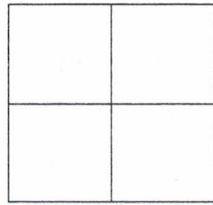
17.) $3x(x - 4x^2 + 2)$	18.) $2b^2(4b - 5 + 6b^2)$	19.) $-4x^3(10x^2 + 3x^3 - 7) + 2x(4 - 3x^2)$
20.) $5m^2n^4(2m^3n^2 + mn^3 - 3m^2n)$		22.) $12c(c^3 + 4c^2 - 2c + 1) - 2c^2(c + 3c^2 - 4)$

**V. Multiply and simplify completely using the BOX method. SHOW WORK!**

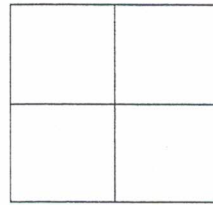
- 23.)  $(x + 3)(x + 2)$       24.)  $(a - 8)(a + 5)$       25.)  $(x + 3)(2x - 5)$       26.)  $(4x + 3)(x - 7)$



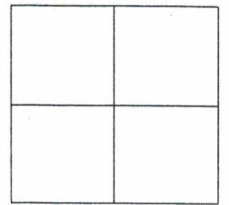
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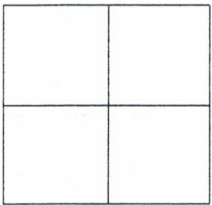


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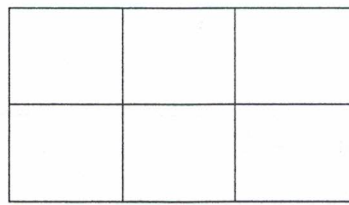


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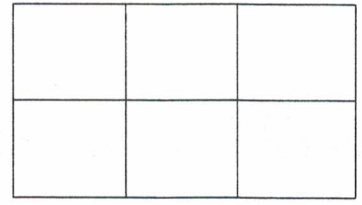
- 27.)  $(3c - 2d^3)^2$       28.)  $(x^2 - 4x + 5)(x - 3)$       29.)  $(2x + 4)(2x^2 - 3x + 4)$



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**VI. Find the expression that represents the area of the shaded region. SHOW WORK!!**

**Note:** For some problems you may have to use this: Area of Triangle =  $\frac{1}{2} \cdot (\text{base}) \cdot (\text{height})$

