1. What is the greatest common factor of each list of terms?

   a) $30,\ 60,\ 15$ b) $10y^3,\ 10y^2,\ 10y,\ 5$

   c) $w^5,\ w^3,\ w^2$ d) $4a^2b^3,\ 8a^2b,\ 16a^2b^2$

2. Using the diagram, determine the factors that created it. Check by multiplying.

3. You'll find this next box diagram is impossible to factor. Look to the diagonals of the examples above...then describe how this question is different.

$5x^2$	20x
5x	10

4. Given the polynomial, set up the box diagram and factor.

a) $3x^2 + 6x + 6x + 12$

b) $6x + 5x^2 + 10x + 12$

c) $4(x + 2) + 3x(x + 2)$

d) $3x(2x + 3) -2(2x + 3)$

e) $2x(1 – x) –3(x – 1)$

5. Given the polynomial, set up the box diagram and factor.

a) $4x^2 + 15x + 11$ b) $12x^2 + 11x + 2$

c) $3x^2 + 7x – 6$ d) $4x^2 + 0x – 9$