Ch 9.8 Factoring Polynomials

Steps to Factor:

1. Look for a ***GCF***
2. If it is a ***binomial***: $\sqrt{F} - \sqrt{L}$
   $(\sqrt{F} + \sqrt{L})(\sqrt{F} - \sqrt{L})$

   If it is a ***trinomial***: Guess and check by listing the factors of the F and L terms and check that the O and the I = M.

   If it has ***polynomial*** (4 terms):
   Factor by grouping:
   1. group 2 terms together and look for a GCF and factor that out.
   2. What is inside the () has to be the same. Then factor that out.

Apr 23-8:39 AM

Ex1) Factoring by grouping - 4 TERMS

Ex1a) $x^3 + 2x^2 + 3x + 6$

Ex1b) $x^3 - 2x^2 - 9x + 18$

Ex1c) $3x^3 + 6x^2 - 108x - 216$

Try3. $2x^3 + 3x^2 - 50x - 75$

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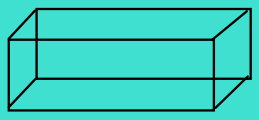
Ex2) What are the dimensions of the rectangular prism if the ***volume = length x width x height***



$V = 3m^3 + 10m^2 + 3m$

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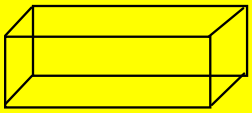
Try) What are the dimensions of the rectangular prism if the ***volume = length x width x height***



$V = 6g^3 + 20g^2 + 16g$

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