

Factoring Polynomials (Blank Worksheet)

(Fill in from polynomial problem)

Four Terms:

0) Factor GCF?

1) _____

2) _____ _____

3) _____ (_____ _____) \pm _____ (_____ _____)
GCF?

4) _____ (_____ _____) (_____ _____)

Three Terms: $Ax^2 + Bx + C$

0) Factor GCF?

1) _____

(multiply A*C)

3) _____

4) _____ _____

5) _____ (_____ _____) \pm _____ (_____ _____)

GCF?

6) _____ (_____ _____) (_____ _____)

2)

Product * _____ ?	Add/Subtract _____ ?

What sign(s) are the factors?

Two Terms:

0) Factor GCF?

If result is two terms of second power and subtracted:

1) $\frac{\text{_____}}{1^{\text{st}} \text{ term}} - \frac{\text{_____}}{2^{\text{nd}} \text{ term}} \quad \text{Take square roots} \Rightarrow \left(\frac{\text{_____}}{1^{\text{st}} \text{ root}}\right)^2 - \left(\frac{\text{_____}}{2^{\text{nd}} \text{ root}}\right)^2$

2) $\frac{\text{_____}}{\text{GCF?}} \left(\frac{\text{_____}}{1^{\text{st}} \text{ root}} + \frac{\text{_____}}{2^{\text{nd}} \text{ root}}\right) \left(\frac{\text{_____}}{1^{\text{st}} \text{ root}} - \frac{\text{_____}}{2^{\text{nd}} \text{ root}}\right)$

If result is two terms of third power (added or subtracted):

1) $\frac{\text{_____}}{1^{\text{st}} \text{ term}} \pm \frac{\text{_____}}{2^{\text{nd}} \text{ term}} \quad \text{Take cube roots} \Rightarrow \left(\frac{\text{_____}}{1^{\text{st}} \text{ root}}\right)^3 \pm \left(\frac{\text{_____}}{2^{\text{nd}} \text{ root}}\right)^3$

2) $\frac{\text{_____}}{\text{GCF?}} \left(\frac{\text{_____}}{1^{\text{st}} \text{ root}} \text{ s } \frac{\text{_____}}{2^{\text{nd}} \text{ root}}\right) \left(\frac{\text{_____}}{(1^{\text{st}} \text{ root})^2} \text{ o } \frac{\text{_____}}{(1^{\text{st}})(2^{\text{nd}})} \text{ p } \frac{\text{_____}}{(2^{\text{nd}} \text{ root})^2}\right)$

3) Simplify _____ (_____ _____) (_____ _____ + _____)