

Factoring Trinomials ($a = 1$)

+ graphing

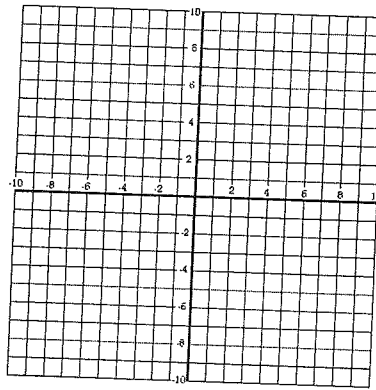
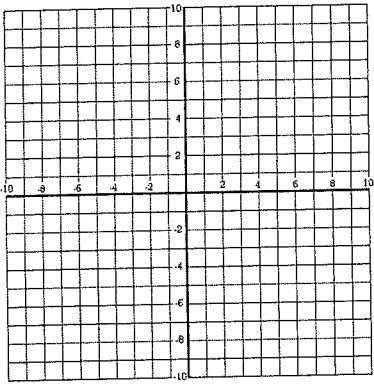
Date _____ Period _____

Factor each completely. Find the roots and vertex. Graph.

~~1) $x^2 + 4x + 4 = 0$~~ ~~2) $x^2 - 11x + 10 = 0$~~

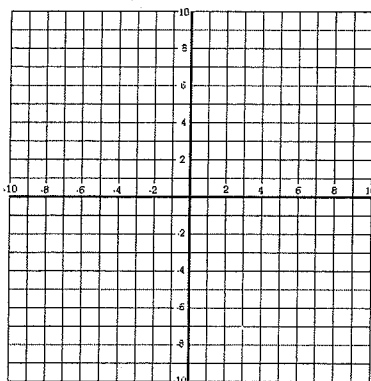
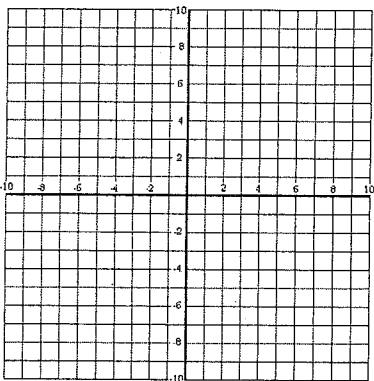
3) $m^2 + m - 90 = \gamma$

4) $n^2 + 4n - 12 = \gamma$



9) $k^2 - 13k + 40 = \gamma$

10) $a^2 + 11a + 18 = \gamma$



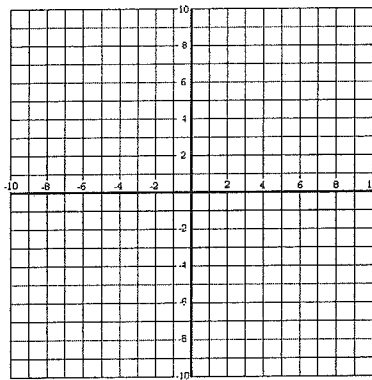
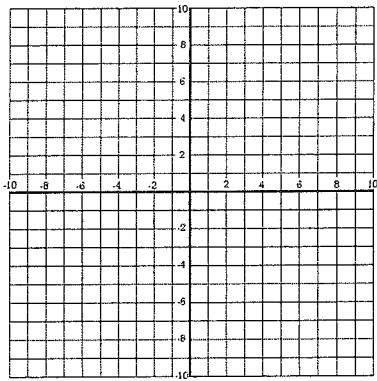
~~13) $b^2 - 6b + 8$~~

~~14) $m^2 + 6m + 8$~~

* Factor GCF first

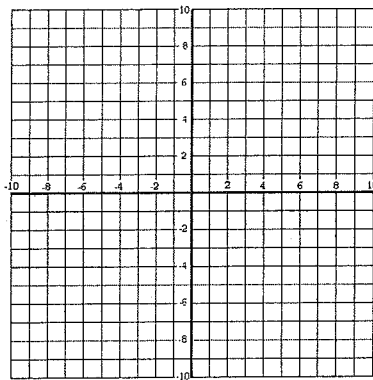
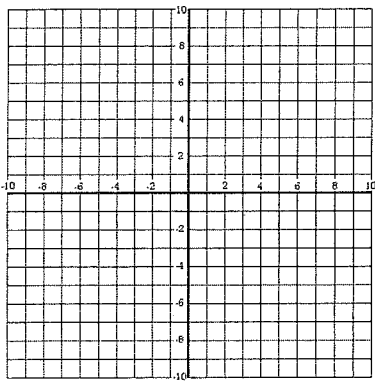
15) $2n^2 + 6n - 108 = \gamma$

16) $5n^2 + 10n + 20 = \gamma$



21) $2p^2 + 2p - 4 = \gamma$

22) $4v^2 - 4v - 8 = \gamma$



Solving Quadratic Equations by Factoring

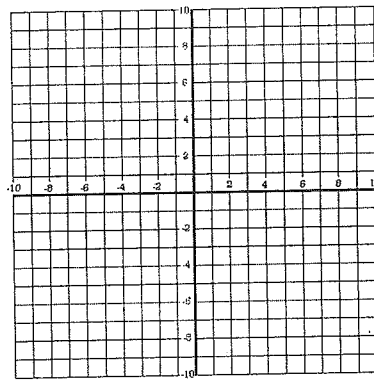
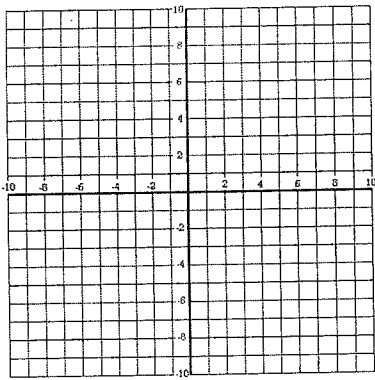
Solve each equation by factoring.

1) $(k + 1)(k - 5) = 0$

2) $(a + 1)(a + 2) = 0$

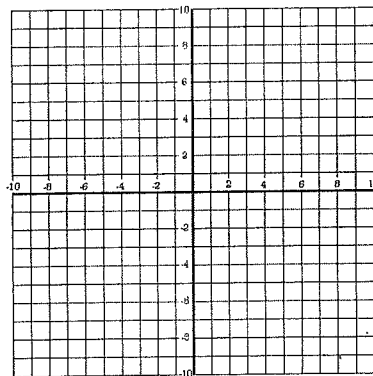
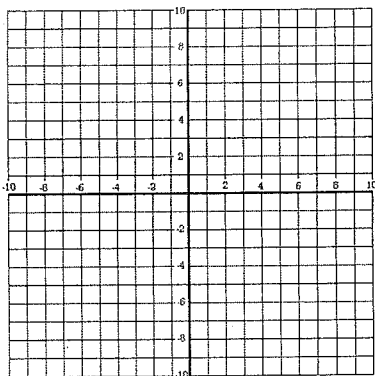
3) $(4k + 5)(k + 1) = 0$

4) $(2m + 3)(4m + 3) = 0$



7) $n^2 - 10n + 22 = -2$

8) $n^2 + 3n - 12 = 6$

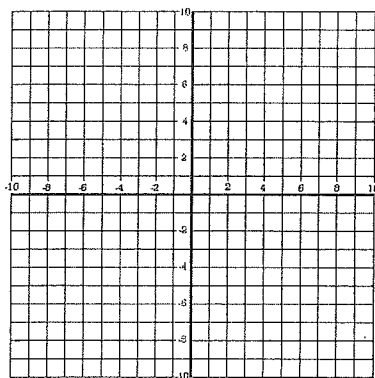
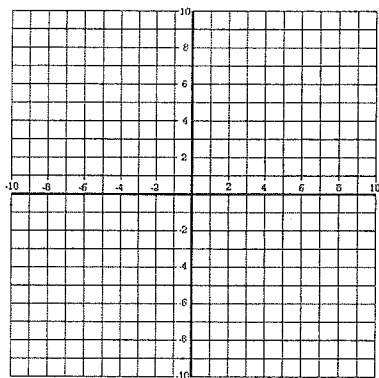


~~11) $x^2 + 8x + 15 = 0$~~

~~12) $15x^2 - 44x + 120 = -30x + 11x$~~

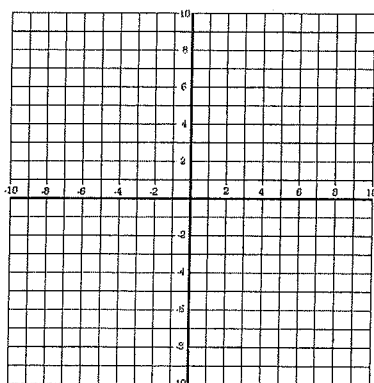
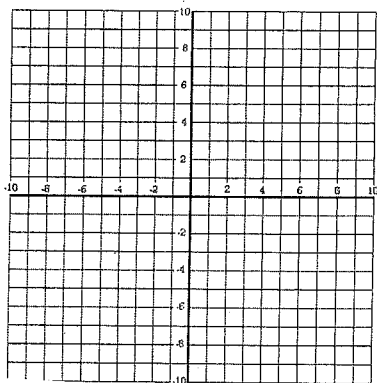
13) $-4k^2 - 8k - 3 = -3 - 5k^2$

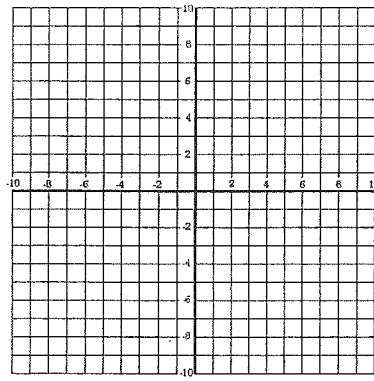
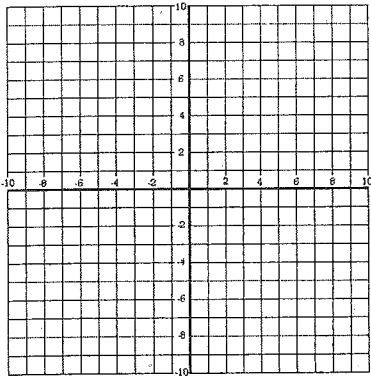
14) $b^2 + 5b - 35 = 3b$



19) $7x^2 + 2x = 0$

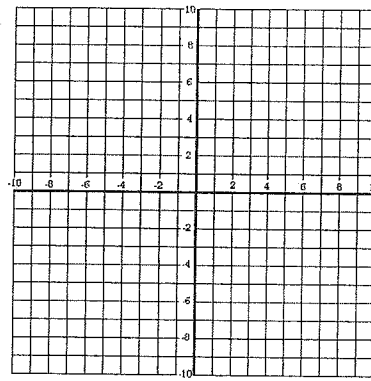
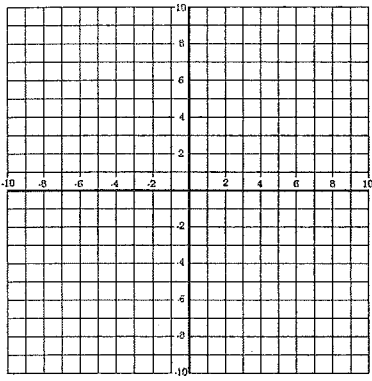
20) $10b^2 = 27b - 18$





$$15) 3r^2 - 16r - 7 = 5$$

$$16) 6b^2 - 13b + 3 = -3$$



$$21) 8x^2 + 21 = -59x$$

$$22) 15a^2 - 3a = 3 - 7a$$