

Name:

Period:

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Practice Worksheet: Factoring Quadratics

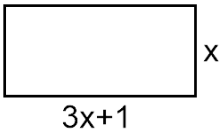
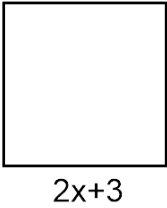
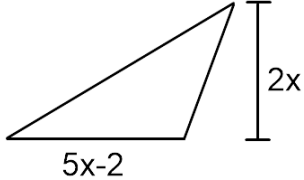
Factor each expression. Show all work. If the expression cannot be factored, write DNF. If it is a difference of squares or a perfect square trinomial, write that below the answer.

1] $x^2 + x - 12$	2] $x^2 - 12x + 35$	3] $x^2 - 3x - 18$
4] $x^2 + 2x - 24$	5] $x^2 - 24x + 135$	6] $x^2 - 21x - 110$
7] $20x^2 - 13x - 15$	8] $81x^2 - 49$	9] $3x^2 - 9x - 12$
10] $30x^2 + 5x - 10$	11] $9x^2 + 12x + 4$	12] $15x^2 + 8x - 16$
13] $27x^2 - 3$	14] $2x^2 - 5x + 1$	15] $50x^2 + 60x + 18$

Solve each quadratic equation by factoring. Show all work.

16] $2x^2 + x = x^2 + 20$	17] $2x^2 - 9 = 3x$	18] $9x^2 + 11x + 18 = 8 - 10x$
19] $5x^2 - 3x + 3 = 3 - 2x^2$	20] $3x^2 - 8x - 19 = (x - 1)^2$	21] $(x - 3)^2 = 3(x - 3)$

Find the value of x . Show all work.

22] Area of the rectangle is 30 sq. ft. 	23] Area of the square is 49 sq. ft. 	24] Area of the triangle is 115 sq. ft. 
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