Algebra 2 Name: _____

Solving Quadratic EQs by Factoring and Finding the Zeros of a Function Date: _____

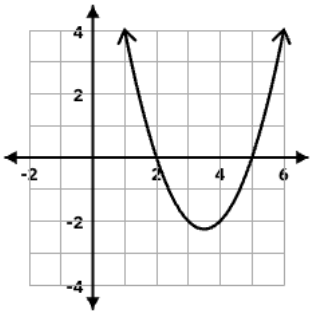
Examples

Review Operations with Square Roots a) add: $\sqrt{12} + 3\sqrt{75}$ b) multiply: $-2\sqrt{3}\left(4\sqrt{6}\right)$	Review Operations with Square Roots c) divide: $\frac{\sqrt{20}}{\sqrt{10}}$ d) divide: $\frac{10\sqrt{3}}{\sqrt{5}}$
Ex 1. Solve the equation by finding a square root. $(p-4)^2 = 49$	Ex 2. Solve the equation by finding a square root. $\frac{2}{3}x^2 + 14 = 20$
Ex 3. Solve the equation by finding a square root. $\frac{2}{5}(x+3)^2 = 5$	Ex. 4. Solve the equation by FACTORING. $x^2 - 4x = 45$

What are the zeros of a function?

How do we find the zeros of a function?

$f(x) = x^2 - 7x + 10$



Ex 6. Find the zeros of the function.

$f(x) = 2x^2 - 11x + 12$

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Assignment

1. Solve the equation by taking a square root. $x^2 = 144$	2. Solve the equation by taking a square root. $(x-6)^2 = 225$
3. Solve the equation by taking a square root. $4(x-1)^2 + 2 = 10$	4. Solve the equation by factoring. $x^2 - 8x = -12$
5. Solve the equation by factoring. $x^2 - 64 = 0$	6. Solve the equation by factoring. $x^2 - 6x = 0$

7. Find the zeros of the function. $f(x) = 2x^2 - 2x - 12$	8. Find the zeros of the function. $f(x) = 4x^2 - 12x + 9$
Operations with square roots. 9. Simplify: $3\sqrt{12}$ 10. Subtract: $\sqrt{7} - 4\sqrt{28}$ 11. Multiply: $5\sqrt{6} \cdot -8\sqrt{15}$	Operations with square roots. 12. Divide: $\frac{\sqrt{7}}{\sqrt{121}}$ 13. Divide: $\frac{\sqrt{14}}{\sqrt{3}}$