Skill Based Tasks

Factor out common term.

$4x^3 - 2x$ $3x^5 - 9x^4 + x^3$

Factor Completely.

$x^2 + 14x + 45$ $x^2 - 8x - 20$

$12x^2 - x - 6$ $6x^2 + 11x + 5$

$2x^2 + 12x - 32$ $6x^2 + 9x - 6$

$4x^2 - 81$ $2x^2 - 32$

$x^2 - 6x + 9$ $4x^2 + 12x + 9$

Use factoring to find the **x - intercepts** of the parabolas below.

$y = x^2 - 7x + 10$

$y = 5x^2 + 18x + 9$

Use the Quadratic Formula to find the **x - intercepts** of the parabolas below. If the there are no x - intercepts, state that. If the intercepts are irrational, use calc to state answer to the nearest hundredth.

$y = 4x^2 + 4x + 1$

$y = -x^2 + 3x + 5$

$y = -x^2 - 2x - 2$

$y = 3x^2 - 2x - 2$

Application Based Tasks

The function below maps the path of a bird that dove underwater. X is horizontal distance in feet and f(x) is vertical distance in feet. The x-axis represents the water level. That said, give the X-Intercepts of the picture below. Then, use your calculator to reveal the approximate points in which the bird entered and exited the water (decimals to the nearest hundredth.) Label them accordingly.

$$f(x) = x^2 - 5x + 2$$

(_____ , _____)   (_____ , _____)