## II-nspire

## Equations of Parabolas

ID: 10220

In this activity, you will explore:

- The focus and directrix of a parabola
- The equation of a parabola

Open the file PreCalcAct32_Parabolas_EN.tns on your handheld and follow along with your teacher to work through the activity. Use this document to record your answers.

Name $\qquad$

## Class

$\qquad$

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EQUATIONS OF PARABOLAS

Precalculus
Focus, directrix, vertex,
symmetry, and equations

Problem 1 - Vertex at (0,0)

|  | Distance from vertex to focus | Equation of parabola |
| :--- | :--- | :--- |
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Conjecture:

|  | Distance from vertex to focus | Equation of parabola |
| :--- | :--- | :--- |
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General Equations for Parabola with Vertex at (0, 0):

Problem 2 - Practice

|  | Focus | Directrix | Equation |
| :--- | :--- | :--- | :--- |
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| Page 2.2 |  |  |  |

Problem 3 - Vertex at (h, k)
General Equations for Parabola with Vertex at (h, k):

