

NAME: _____

P.I. A2.A.24: Know and apply the technique of completing the square

1. Make up your own quadratic equation. Solve it by completing the square.
2. Write a quadratic equation that will have only one solution and can be easily solved by completing the square.
3. How can completing the square help write a quadratic equation in vertex form?

[1] Answers may vary. Sample: $x^2 + 4x = 21$; solution: $x = 3, -7$

[2] Answers may vary. Sample: $x^2 + 10x = -25$

Answers may vary. Sample: the vertex form of a quadratic equation is $y = a(x - h)^2 + k$. By completing
[3] the square using the x^2 term and the x -term, you can get the expression $(x - h)^2$.