Teacher: Lee

1 What are the solutions to the equation $x^2 + 2x = 12$?

$$\begin{array}{ccc} 1 & -1 \pm \sqrt{13} \\ 2 & -1 \pm \sqrt{11} \\ 3 & 1 \pm \sqrt{13} \\ 4 & 1 \pm \sqrt{11} \end{array}$$

$$\frac{2}{3} \frac{1 \pm \sqrt{13}}{1 \pm \sqrt{13}}$$

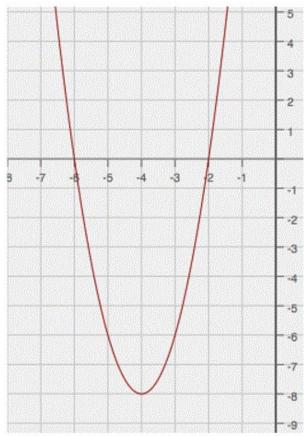
$$4.1 \pm \sqrt{11}$$

The quadratic equation $x^2 - 6x = 12$ is rewritten in the form $(x + p)^2 = q$, where q is a constant. What is the value of p?

$$\frac{1}{2} - \frac{1}{9}$$

$$\frac{1}{3}$$
 $-\frac{1}{3}$

- 3 The graph of a quadratic function is shown below.



An equation that represents the function could be

1
$$f(x) = -2(x-4)^2 + 8$$

2 $f(x) = 2(x-4)^2 + 8$
3 $f(x) = -2(x+4)^2 - 8$
4 $f(x) = 2(x+4)^2 - 8$

$$2 f(x) = 2(x-4)^2 + 8$$

$$3 f(x) = -2(x+4)^2 - 8$$

$$4 f(x) = 2(x+4)^2 - 8$$

- What are the solutions to the equation $3(x-4)^2 = 27$?
 - 1 1 and 7
 - 2-1 and 7
 - $34 \pm \sqrt{24}$
 - $4 4 \pm \sqrt{24}$
- 5 What is the solution set of the equation (x-2)(x-a) = 0?

 - 1 -2 and *a* 2 -2 and -*a* 3 2 and *a* 4 2 and -*a*
- Which equation and ordered pair represent the correct vertex form and vertex for $j(x) = x^2 12x + 7$?
 - 1 $j(x) = (x 6)^2 + 43$, (6, 43) 2 $j(x) = (x 6)^2 + 43$, (-6, 43) 3 $j(x) = (x 6)^2 29$, (6, -29) 4 $j(x) = (x 6)^2 29$, (-6, -29)