

Ready, Set, Go!

Ready

Topic: Factoring polynomials

Factor each of the polynomials completely.

1.

$x^2 + x - 12$

2.

$x^2 - 2x - 8$

3.

$x^2 + 5x - 14$

4.

$x^2 - x + 6$

5.

$x^2 + 6x + 9$

6.

$x^2 - 7x + 10$

7.

$2x^2 - 9x - 5$

8.

$3x^2 - 3x - 18$

9.

$2x^2 + 8x - 42$

10. How is the factored form of a quadratic helpful when graphing the parabola?

Set

Topic: Solving quadratic inequalities

Solve each of the quadratic inequalities.

11.

$x^2 + x - 12 > 0$

12.

$x^2 - 2x - 8 \leq 0$

13.

$x^2 + 5x - 14 \geq 0$

14.

$2x^2 - 9x - 5 \geq 0$

15.

$3x^2 - 3x - 18 < 0$

16.

$x^2 + 4x - 21 < 0$

17.

$x^2 - 4x \leq 0$

18.

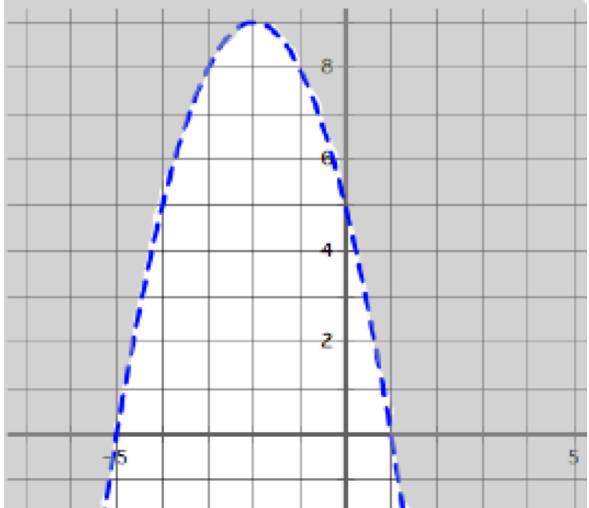
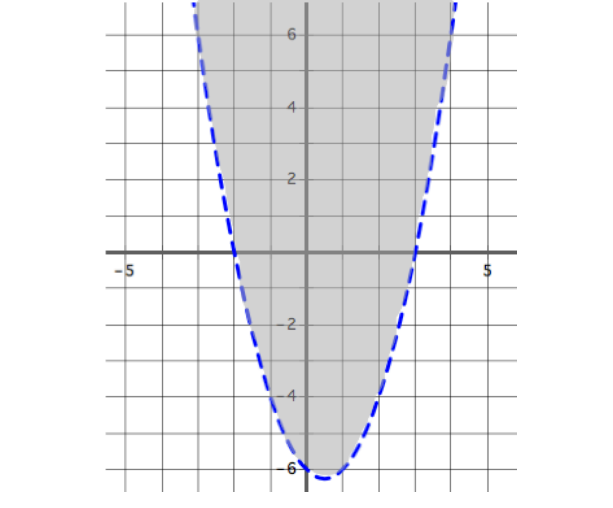
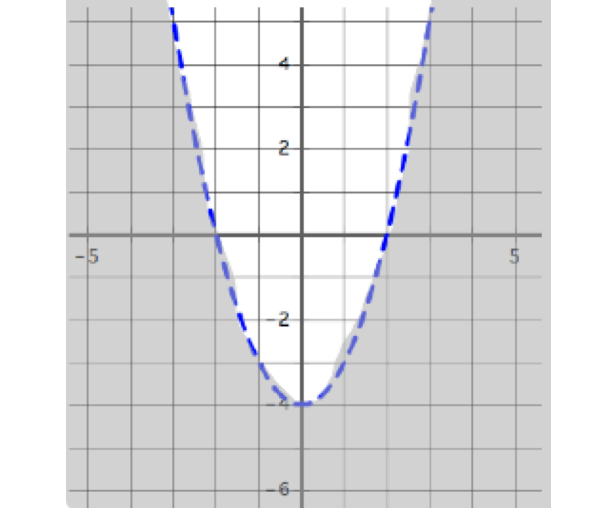
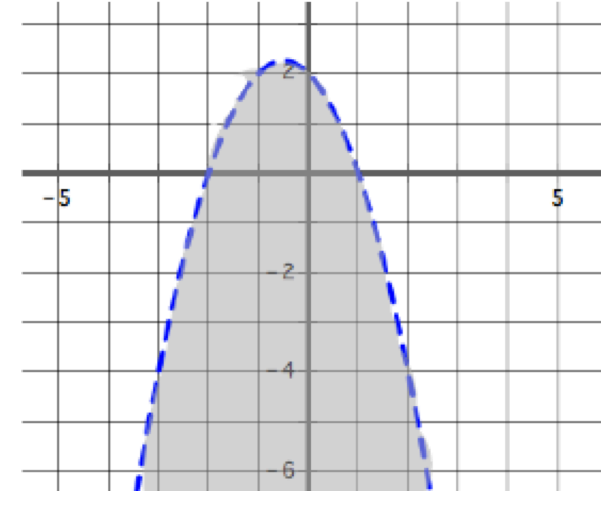
$x^2 \leq 25$

19.

$x^2 - 4x \leq 5$



Match each graph with its inequality.

<p>a.</p> 	<p>b.</p> 
<p>c.</p> 	<p>d.</p> 
<p>20. $y > x^2 - x - 6$</p>	<p>21. $y < x^2 - 4$</p>
<p>22. $y < (x + 2)(1 - x)$</p>	<p>23. $y > 5 - 4x - x^2$</p>



Go

Topic: Vertex form of quadratic equations

Write each quadratic function below in vertex form.

24.

$x^2 + 6x + 5$

25.

$(x + 3)(x - 5)$

26.

$(x - 2)(x + 6)$

27.

$x^2 - 12x + 20$

28.

$2x^2 + 16x + 8$

29.

$x^2 - 2x - 8$

