

5-3**Solving Quadratic Equations by Graphing and Factoring****Warm Up**

Find the x -intercept of each function.

1. $f(x) = -3x + 9$

2. $f(x) = 6x + 4$

Factor each expression.

3. $3x^2 - 12x$

4. $x^2 - 9x + 18$

5. $x^2 - 49$

5-4**Completing the Square****Warm Up**

Write each expression as a trinomial.

1. $(x - 5)^2$

2. $(3x + 5)^2$

Factor each expression.

3. $x^2 - 18x + 81$

4. $16x^2 + 24x + 9$

5-3

Solving Quadratic Equations by Graphing and Factoring

Warm Up

Find the x-intercept of each function.

1. $f(x) = -3x + 9$ **3**

2. $f(x) = 6x + 4$ **$-\frac{2}{3}$**

Factor each expression.

3. $3x^2 - 12x$ **$3x(x - 4)$**

4. $x^2 - 9x + 18$ **$(x - 6)(x - 3)$**

5. $x^2 - 49$ **$(x - 7)(x + 7)$**

5-4

Completing the Square

Warm Up

Write each expression as a trinomial.

1. $(x - 5)^2$ **$x^2 - 10x + 25$**

2. $(3x + 5)^2$ **$9x^2 + 30x + 25$**

Factor each expression.

3. $x^2 - 18x + 81$ **$(x - 9)^2$**

4. $16x^2 + 24x + 9$ **$(4x + 3)^2$**