

8-6 Factoring $ax^2 + bx + c$

Factor completely (1-4):

1. $5x^2 + 19x - 4$

$$= (5x - 1)(x + 4)$$

2. $6x^2 - 23x + 20$

$$= (3x - 4)(2x - 5)$$

3. $4x^2 - 5x - 6$

$$(4x + 3)(x - 2)$$

4. $12x^2 + 20x - 8$

$$= 4(3x^2 + 5x - 2)$$

$$= 4(3x - 1)(x + 2)$$

5. What is the length of a rectangle that has a width of $3x + 4$ and an area of $18x^2 + 69x + 60$?

$$(3x + 4)(\quad) = 18x^2 + 69x + 60$$

$$(3x + 4)(6x + 15)$$

The length of the rectangle is $6x + 15$