

Name: _____

Date: _____

BLM 7.4.1

Practice: Factor Trinomials of the Form $x^2 + bx + c$

1. Find a pair of integers with each product and sum.
 - a) Product: 80 Sum: 18
 - b) Product: 27 Sum: 12
 - c) Product: 36 Sum: 13
 - d) Product: 32 Sum: 12
2. Find a pair of integers with each product and sum.
 - a) Product: 10 Sum: -7
 - b) Product: -40 Sum: -3
 - c) Product: 35 Sum: -12
 - d) Product: 24 Sum: -11
3. Factor each trinomial.
 - a) $x^2 + 4x - 12$
 - b) $x^2 + 8x + 15$
 - c) $x^2 - 6x - 16$
 - d) $x^2 - 5x - 14$
4. Determine the dimensions of each rectangle, given the area.
 - a) $x^2 - 3x - 4$
 - b) $x^2 + 2x - 24$
 - c) $x^2 - 4x - 21$
 - d) $x^2 + 7x + 10$
5. The surface area of a teacher's desk is represented by $x^2 - 8x + 15$.
 - a) What are the dimensions of desk?
 - b) Find the actual dimensions if $x = 100$ cm.
6. The surface area of a rectangular door locker is represented by $x^2 + 6x - 16$.
 - a) What are the dimensions of the locker door?
 - b) Find the actual dimensions if $x = 80$ cm.
7. The area of a television screen is represented by $x^2 + 3x - 18$.
 - a) What are the dimensions of television?
 - b) Find the actual dimensions if $x = 75$ cm.
8. The area of the gym floor is represented by $x^2 - x - 20$.
 - a) What are the dimensions of the gym floor?
 - b) Find the actual dimensions if $x = 10$ m.
9. The area of Mary's swimming pool is represented by $x^2 + 10x + 21$.
 - a) What are the dimensions of the pool?
 - b) Find the actual dimensions if $x = 4$ m.
10. The perimeter of a rectangular sandbox is 30 m. The area is represented by $x^2 + 7x - 8$. Find the actual dimensions of the sandbox.