Name:_____ Period:_____

5.1 Preparing for Factoring

Tips:

- If two numbers multiply to a positive, they are either both positive or both negative.

    o If they multiply to a positive and add to a positive:
    both numbers are positive.

    o If they multiply to a positive and add to a negative:
    both numbers are negative.

- If two numbers multiply to a negative, one is positive and one is negative.

    o If they multiply to a negative and add to a positive:
    the bigger number is positive and the smaller number is negative.

    o If they multiply to a negative and add to a negative:
    the bigger number is negative and the smaller number is positive.

In problems 1-4, list all pairs of numbers with the given product (multiplication answer), then identify the pair with the given sum (addition answer).

1. Multiply to: 6   Add to: 5
   List of all pairs that multiply to 6:

   Which ones add to 5? _____

2. Multiply to: 24   Add to: -14
   List of all pairs that multiply to 24:

   Which ones add to -14? _____

3. Multiply to: -6   Add to: 5
   List of all pairs that multiply to -6:

   Which ones add to 5? _____

4. Multiply to: -36   Add to: -9
   List of all pairs that multiply to -36:

   Which ones add to -9? _____

Find two numbers with the given product (multiplication answer) and sum (addition answer).

Product (× to)	Sum (+ to)	Numbers
10	7	
-24	2	
8	9	
-25	0	
8	6	
-12	1	
-11	-10	
72	18	
12	-13	
-2	-1	
-80	2	
-40	-6	
-44	7	
63	16	
90	-19	

Product (× to)	Sum (+ to)	Numbers
4	5	
-60	-7	
-66	5	
15	-8	
-8	2	
-16	-6	
33	-14	
-15	2	
30	-13	
5	-6	
-6	-1	
20	9	
121	-22	
20	-12	
-9	-8	